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Robert Fletcher, M.D., 1823-1912
During the Civil War and in old age

Memoir of Robert Fletcher

BY ESTELLE BRODMAN, PH.D.

*Associate for Extramural Planning
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INTRODUCTION

ROBERT FLETCHER, physician, hospital administrator, bibliographer, editor, statistician, anthropometrist, and amateur folklorist, was born in Bristol, England, on March 23, 1823. He received his medical education in Bristol and in London, emigrated to the United States in 1846, and established himself in Cincinnati. He served as regimental surgeon and medical purveyor during the Civil War; in 1871 he came to Washington to work as a medical statistician. In 1876 he reported as assistant to John Shaw Billings at the Surgeon General's Library, and was still serving as Principal Assistant Librarian of that institution at the time of his death on November 6, 1912. To our generation he is a shadowy and almost forgotten figure, yet his contribution to medical bibliography was substantial. This brief biography sets forth the basic facts of his life and work, and estimates his place in the history of medical librarianship. A more extended version of this memoir has been deposited in the National Library of Medicine.

I

Fletcher was the fourth child and only son of Robert and Esther Wall Fletcher. His early schooling was in his native city of Bristol. After finishing his preliminary education he entered his father's office for the study of the law; two years later, in 1839, deciding that medicine was more to his liking, he began to attend the Bristol Medical School.

By the first decade of the nineteenth century Bristol had a private school of anatomy, and by the 1820's there were no less than two schools of medicine, one an outgrowth of the anatomy school, called the School of Anatomy and Medicine, and the other called the Bristol Medical and Surgical School. The first was recognized by the Society of Apothecaries and the second by the Royal College of Surgeons. The two schools united in 1833 to form the Bristol Medical School, using as its hospital the Bristol Infirmary, which at that time had accommodations for over two hundred patients. The Bristol Infirmary was one of the largest of the British provincial hospitals. It had all three orders of medical men, physicians, surgeons, and apothecaries, on its staff, and it not only allowed these officers to have

apprentices and pupils, but it arranged to use these pupils in rotation as emergency house officers in much the same way that modern residents and interns are used by teaching hospitals today.

Although the nineteenth century had begun with the three orders of medical men completely separated, the exigencies of urban and industrial society required a medical man whose training embraced all three fields. These stresses produced what was first called the "surgeon-apothecary," and later the "general practitioner." Such a man received training in the practice of medicine, in surgery, and in midwifery; in addition he studied pharmaceutical chemistry and the compounding of drugs. Mr. Hoggins in Mrs. Gaskell's novel *Cranford* is typical of such practitioners. This system became so much the standard for the education of physicians in England in the first half of the nineteenth century that it was tacitly taken over by the Medical Act of 1858, and became the foundation of the later Conjoint Board. A good outline of the struggle to reach this position, which did not come about without both lay and professional opposition, is given by George Eliot in *Middlemarch*.

Medical students who wished to practice as general medical men usually took the qualification examinations of both the Society of Apothecaries and the Royal College of Surgeons. The former required five years of apprenticeship, and to meet this requirement Fletcher was articled to Henry Clark of Bristol in 1839, although his formal studies at the Infirmary did not begin until 1840. In February 1838 the Board of the Infirmary had set up a new code to take care of the many students from the Medical School who wished to get their clinical training at the infirmary. In this code the fees of the "general" students were divided into segments, part going to the Infirmary, part to the physicians, and part to the Surgeons or Apothecaries. Under this system students were not necessarily attached to one chief, but were the students of all in rotation. In any case Fletcher must have been busy with preclinical studies of anatomy, physiology, chemistry, materia medica, and compounding during his first year and could have had little time or even the requisite knowledge to serve at the hospital.

The reorganization of the Infirmary which resulted in the "general" students also set up a students' medical library. A Library Committee was formed and an "Acting Librarian" appointed who prepared a catalog of the collection and who appears to have had as much difficulty obtaining the return of overdue works as any other such official. In addition to this educational venture, which occurred while Fletcher was a student, there was a "Bristol Medical Students' Literary Society" where papers of professional and general literary interest were presented. The Bristol Branch of the Provincial Medical and Surgical Society (later the

British Medical Association) was also new and vigorous during Fletcher's student days. The members of the faculty of the School and other physicians and surgeons practicing in Bristol had access to a Medical Reading Club; in this club, books and journals were purchased jointly and passed around to the members, usually at a monthly supper party of some conviviality. It is thus obvious that Bristol was well supplied with means for professional education outside the confines of the school, and it is interesting to speculate whether Fletcher received the impetus for his later omnivorous reading as a result of these opportunities, or whether he himself might not have been either one of the founders of the Literary Society or a prime mover in the Library.

Fletcher studied as a medical student at the Infirmary for one year (October 1840 to September 1841) and as a surgical pupil for 18 months (October 1841 to April 1843). After he decided to emigrate to America he must have attempted to collect all his diplomas and credentials, because his certificates from the Bristol institution are dated in the Spring of 1846. The medical certificate is signed by G. Wallis, Henry Riley, Gilbert Lyon, and James F. Bernard; the surgical diploma bears the signatures of John Harrison, W. F. Morgan, Henry Clark (his preceptor), and William P. Green. Fletcher would also have known Charles Redwood Vachell, who served as House Physician and Apothecary to October 1840, and Charles Greig, who held that post after October 1840, since the person who held this office had charge of all the students and thus had more influence on their education than anyone else. Most of the men mentioned both taught at the Medical School and served at the Infirmary, some of them after Fletcher had ceased to be a student in the medical school; this circumstance is due to the interval between his leaving Bristol and the issuing of his diplomas.

In the certificate on his clinical work in medicine, the physicians of the Bristol Infirmary added in handwriting on the printed form a few phrases characterizing Fletcher's work. "The physicians to the Bristol Infirmary," they noted, "do hereby certify that Mr. Robert Fletcher has attended the medical practice at this Institution for one year, during which time he was kind to the patients and very zealous after knowledge." The surgeons in their turn noted that "Mr. Robert Fletcher has attended our Practice at this Hospital as a Pupil for the space of one year and six months, with much diligence and attention." These characteristics—kindness to patients, zeal after knowledge, and diligence and attention to his work—were to remain with Fletcher throughout his life. The very next year after he qualified for practice by examination before the Apothecaries and Surgeons he went to school, at the London Hospital, for 18 months of further "medical practice and clinical lectures." Here he was

the pupil of James Luke, who was later to be the president of the Royal College of Surgeons.

In 1841 Fletcher matriculated at the London University, which was then only a degree-conferring institution without resident students. Meanwhile he continued his medical schooling in Bristol. Finishing there in April 1843, he proceeded to London to prepare for the next portion of his life. There he found and furnished a place to live, and there on September 17 he married Hannah Howe, also of Bristol, in St. Martin's-in-the-Fields, Middlesex. He took only a short honeymoon, for by October 10 he had already started as a Dressing Pupil in Surgery at the London Hospital. He remained in that post for a full year, and during this period he studied for his examination at the Society of Apothecaries, which he passed on May 2, 1844. He evidently had no plans to remain in London, for he took the Extra-Licence, which entitled him "to practice in any part of England and Wales, except the City of London, the Liberties or Suburbs thereof, or within ten miles of the said city."

At the expiration of his work as a Dressing Pupil, Fletcher sat for his examinations at the Royal College of Surgeons. On November 1, 1844 he was found "fit and capable to exercise the Art and Science of Surgery." On his diploma (no. 433) his address is given as Bristol, but it does not have the restrictions about practice in London. It would appear, therefore, that some time between May and November of 1844 Fletcher decided to remain in London and set up practice there. What prompted the change in his plans is unknown, as is equally unknown what caused him to decide to emigrate to the United States less than two years later. Since he used the interval for further attendance at the London Hospital, there is a presumption here that, like Arthur Conan-Doyle's, Fletcher's practice in the early years left him much free time. Perhaps the need to earn more money, now that he was married and the father of one child and expecting a second, was the stimulus which led him to think first of remaining in London and then of leaving the country entirely for a wholly new world. At any rate, by the early Spring of 1846 his resolution to try his fortune in a new country had been taken. Beginning in January of that year, Fletcher set about collecting all his diplomas and credentials to take with him to a land where he was not personally known, for use as evidence of his training and experience.

In an autobiographical sketch, Fletcher says that he spent six months travelling through the United States before he settled down to practice medicine in Cincinnati. How this must have seemed to his wife is unknown, but travelling through what was then very wild territory with one child less than two years old and with another about to be born must have been an ordeal. The second child, another son, named Stephen

Robert, was born in Chicago in July 1846, and died within two months. It was surely a trying time for the entire family, and one can surmise that Mrs. Fletcher welcomed the decision to remain in Cincinnati.

Cincinnati was already a bustling commercial town early in the century; its population grew from 2,500 in 1810 to 80,000 in 1846, and made Ohio the third most populous state in the Union. Cincinnati was also a medical center of some repute. In addition to the luster which three existing medical schools shed, there were several hospitals, both general and specialized. For a period the *Western Journal of the Medical and Physical Sciences* and the *Botanical Medical Recorder* were published in Cincinnati, and there was a thriving medical society which took an active interest in the work of the schools and the hospitals. The 35 physicians, 14 druggists, and 5 dentists resident there in 1846 could purchase medical journals through a local bookstore, Robinson and Jones, which advertised that it could supply the *London Lancet*, *Medico-Chirurgical Review*, *Bell's Medical Journal*, the *British and Foreign Medical Review*, or the *American Journal of the Medical Sciences* for \$5.00 a year each, the *Western Lancet* for \$3.00, and *Braithwaite's Retrospect* for \$1.00. What the 2 homeopathic and 5 botanic physicians read, in addition to the *Botanical Medical Recorder*, is unknown.

With all of Cincinnati's attractions, it is not surprising that Fletcher decided to settle in that city. He must have liked life there, for he was naturalized in Cincinnati in 1852, five years after he first settled in the United States.

Fletcher says that he practiced medicine in Cincinnati, but his practice was short-lived. By 1850 he had left medicine to become a wholesale and retail druggist, which he accomplished by purchasing the business of Charles Collins at Sycamore and Pearl Streets, less than two blocks from where he resided at 100 East 3d Street. By that time Cincinnati had 29 apothecaries and druggists serving the 64 physicians and 11 dentists who took care of its 115,000 citizens. Fletcher continued in the drug business for at least seven years, always at the same location, but there is conflicting testimony about his success. On one side is a letter dated August 24, 1866 from Rufus King, journalist, politician, and friend of Fletcher, to the Attorney General in Washington, which was written in an attempt to procure for Fletcher the position of Medical Purveyor in the Army. There King mentions Fletcher's "some years actual dealing in the Drug and Apothecary business in this city," and, without saying so outright, implies that they were successful.

On the other hand, Charles Collins resumed his drug business within a few years, in spite of the fact that most purchases of commercial firms carry a clause in them forbidding the original owner from setting up

in competition with his purchaser. If such a contract was made, Collins' resumption of business implies that Fletcher was not able to carry out his side of the contract, thus leaving Collins free to abrogate its terms. It is curious that he did not return to the drug business after making a six-month trip to England in 1857, but became instead a "Commission Merchant and Agent for Landreth's Garden Seeds" (as he himself advertised in the City Directory) from 1859 until he entered the Army, and that he undertook still another commercial venture after his return from the War.

In the short account of his life which Fletcher wrote for the Army Board in 1863, he said: "My health becoming much disordered from frequent attacks of Spinal Neuralgia I gave up professional pursuits and in 1857 I revisited Europe. Upon returning I did not immediately resume practice..." Not only did Fletcher not resume practice immediately, it might be said that he *never* resumed it except for a period of about ten months in the Army in 1861-62. Since he had ceased to practice in 1850, the whole time devoted to the profession for which he had been trained was less than five years: two years in London, during which time he was still "walking the London Hospital," almost two and a half years in Cincinnati before the War, and less than a year in the Army. Fletcher's failure as a physician was the subject of at least one dinner table conversation at William Osler's home. Dr. W. W. Francis, Osler's cousin, who lived with Osler in Baltimore from 1895 to 1902, reports Fletcher's description of his "distaste for and lack of success in practice before the war because few of his patients appreciated his own pet prescription, 'treat it with contempt.'" ¹ His ability to pass the examinations of the Army Medical Boards, both the State examination and the Federal, in an outstanding fashion a number of years after he ceased practice is, therefore, to be remarked.

Fletcher presents a puzzling picture. He began his education with the legal profession in view. After two years of legal study he shifted to medicine. Following a long course of successful medical study, he then practiced for a short period in his native land. Abandoning medicine at home, he emigrated to a new country where he again practiced for a short period before finally abandoning the private practice of medicine completely. At this point he entered the commercial field as a druggist, and in this he persevered for about seven years before finally withdrawing to still another commercial field. Fletcher's frequent changes of occupation raise interesting questions concerning his personality. What kind of a man was he? On the one hand there are his later successes as Medical Purveyor in the Civil War and at the Library of the Surgeon General's

¹ Letter from Francis to E. Brodman, dated March 19, 1959.

Office, while on the other hand the sources reveal his apparent difficulties in England and in Cincinnati before the War. Was he one of those charming enigmas who captivate their friends and are the despair of their families? John Keats and Leigh Hunt come to mind immediately, as does Harold Skimpole in *Bleak House*. If these guesses are correct it is not difficult to understand why his father placed the son's patrimony in a trust fund, only the interest of which could be obtained, instead of presenting him with the entire capital outright. It must be reiterated, however, that these are only conjectures without direct proof.

Besides the changes of occupation there is the matter of health. Fletcher was in the Army for approximately six years; during this period he was ill only once, for a short period in March 1862. He appears never to have been sick after the war until his almost fatal attack of diphtheria in his eighty-eighth year. With such an enviable record of good health for most of his life (his grandson said of him, "He was never sick a day in his life.") his "spinal neuralgia" in 1857 is surprising. Just what the disease was with which he suffered, how it had been brought about, how long it lasted, and what caused it to disappear are all tantalizing questions for which no certain answers are available.²

Even though Fletcher was not practicing his profession in these years, he was still keeping up with all that was new in medicine. From his Army examination it is established that sometime during this period he read Virchow's *Cellularpathologie*, which appeared first in German in 1858 and in English in 1860, and that he perused certain medical journals regularly. He followed with interest the new theories of bacteriology which were beginning to be promulgated about this time. Moreover, he continued his reading in English literature. John H. Brinton, Professor of Surgery of the University of Pennsylvania, and Surgeon in the Army during the war as well as the Curator of the Army Medical Museum, said of his assignment to duty in Nashville in 1865, "I...greatly enjoyed my duty in Nashville...I had formed...some very pleasant acquaintances, and, among others, I greatly enjoyed the society of Surgeon Fletcher on duty as Medical Purveyor. He was an Englishman, thoroughly educated, and a deep Shakespearean scholar. Many and many a pleasant talk we had together, and much I learned from him." (This interest in Shakespeare was to continue and become the basis of some of Fletcher's later publications.)

II

When the Civil War broke out in April 1860 the United States Army consisted of less than 16,000 men, widely scattered in small posts across

² One contemporary account of this disorder is PORTER, ISAAC G., On neuralgia of the spinal nerves, *Am. J. M. Sc.* 23: 81-93, 1838-39.

the country. The Surgeon General in Washington had a staff of two Surgeons, two Assistant Surgeons, and three clerks; there were 28 other Surgeons and 81 Assistant Surgeons serving with the troops; resignations and dismissals soon left only 98 officers to carry on the work of the entire department. In the course of four years, the Civil War developed into the greatest conflict in history to that time; four million soldiers were engaged on both sides, and 625,000 perished, two out of three dying of disease rather than of wounds. The Army Medical Department went into the War pressed down by outmoded traditions, unprepared, undermanned; there were no large hospitals, no ambulance corps, no nursing services, no plans. Yet four years later an organization had emerged which was efficiently doing the work assigned to it.

Each State regiment was expected to furnish its own medical officer, and there was little uniformity in the methods of selection. Ohio was particularly noted for the thoroughness of its tests and the fact that appointments were made in line with the results of these tests. That Fletcher stood at the top of the list of candidates, as the result of an examination which he took at Columbus in the summer of 1861, speaks well for his medical knowledge.

The First Ohio Regiment of Volunteers had been organized from a nucleus of older militia companies, had served three months through the First Battle of Bull Run, and had then returned home for mustering out. In October 1861 the Regiment was reorganized for three years of service, and after some time in camp near Dayton, proceeded to Cincinnati for outfitting and thence to Louisville for action, under the command of Colonel Benjamin F. Smith (a Regular Army officer), and with Robert Fletcher as its Surgeon and A. Wilson its Assistant Surgeon. The First Ohio Volunteers was soon assigned to the Fourth Brigade of General Rousseau, and became part of the Second Division of General Alexander M. McCook. The Regiment spent from November 1861 to April 1862 marching from place to place in Tennessee and Kentucky and engaging in slight skirmishes with the enemy. It was ordered to Shiloh on the morning of April 6, but in spite of forced marches did not arrive until daylight of the following day, by which time most of the fighting had already taken place; nevertheless, the Regiment was credited with relieving the brigade of Colonel Gibson at a crucial point in the battle on the second day and causing the withdrawal of the Rebel troops.

Fletcher himself was not present at the battle, however, for by orders of Surgeon Murray in March 1862, he had been assigned to organize Military Hospital No. 1 in Nashville. In July of that year Fletcher was promoted to be Brigade Surgeon on the staff of General I. W. Sill, a post in which most of his time was devoted to procuring and distributing



FIG. 1. Military Hospital No. 1, Nashville, Tenn. in 1864

supplies; and in November 1862 he took charge of General Hospital No. 7, also in Nashville, with the additional duties of Assistant Medical Purveyor, for which his previous experience made him eminently qualified. Finally, on February 24, 1863, he was named Medical Purveyor in Nashville, a position he held for the rest of the War and one in which he provided the medical supplies and equipment for the entire Army of the Cumberland for the remainder of the conflict.

Military Hospital No. 1 grew from its founding until it contained 936 beds in December 1864; while General Hospital No. 7 (called General Hospital No. 19 after August 1863) held 629 beds at the same date. In December 1862, when Fletcher was in charge of it, the latter hospital had a complement of 15 medical officers, and provided accommodations for several hundred soldiers. Specific information is lacking about the building in which General Hospital No. 7 was housed; Hospital No. 1 was in two converted buildings: the Howard High School and a gun factory, which, according to the official report on it, "answered the purpose admirably."

In addition to these hospitals, Fletcher for a time was also in charge of the Female Venereal Hospital, a unique institution in the Civil War Army. By the Spring of 1863 the venereal disease rate among soldiers in and around Nashville had risen to alarming proportions, until finally the Commanding General decided the city must be rid of its prostitutes. He therefore ordered the Provost Marshal to round up "all the women of the city publicly known to be of vile character," to place them on a chartered river steamer, and to take them away from the city. On July 8 the steamer started for Louisville, but that city refused to accept the prostitutes, as did Cincinnati also. After much legal action the boat was ordered back to Nashville, where it arrived on August 3 and its passengers disembarked "to resume their former modes of life."

Admitting failure in his effort at deportation, the Commanding General next decided on licensing the prostitutes, with medical examination and necessary treatment a prerequisite. A hospital was established and Fletcher placed in charge. During the first six months 300 women were examined and licensed, of whom 60 required treatment. The women were first assessed 50 cents for their certificates; when the sums procured in this fashion became inadequate, the fee was raised to one dollar, at which some of the prostitutes protested. The system was praised highly by both line officers and the Army Surgeons, and was later imported into Memphis, Tennessee, where, however, it lasted only about six months. In Nashville it was in force for at least one year, for on August 15, 1864, Fletcher submitted a report on it, which said,

It is not to be supposed that a system hastily devised, established for the first time on this continent, and certain to encounter all the obstacles that vicious interests or pious ignorance could put forth, should be other than imperfect. We have here no Parisian "Bureau des Moeurs," with its vigilant police, its careful scrutiny of the mode of conduct of houses of prostitution, and its general care of the public welfare both morally and in its sanitary consideration. This much, however, is to be claimed, that after the attempt to reduce disease by the forceful expulsion of the prostitutes had, as it always has, utterly failed, the more philosophic plan of recognizing and controlling an ineradicable evil has met with undoubted success.

Among the difficulties to be overcome was the opposition of the public women. This has so effectually disappeared that I believe they are now earnest advocates of a system which protects their health and delivers them from the extortion of quacks and charlatans. They gladly exhibit to their visitors the "certificate" when it is asked for, a demand, I am informed, not infrequently made. The majority of the patients in the hospital are not sent from the inspection room, but consist of women who, suspecting their malady, have voluntarily come for examination and treatment.

Such additional duties were interesting and no doubt important, but the greatest contribution which Fletcher made to the War lay in his organization and administration of a large medical supply system; and this, in part at least, was his direct contribution to the victories of Sherman's March to the Sea and Grant's Mississippi campaign.

Before the Civil War the Medical Department of the Army obtained almost all its medical supplies (medicines, hospital stores, instruments, dressings, books and stationery, and bedding) from a single Purveying Depot in New York City. As the country had expanded, several Sub-depots had been set up in Texas, Louisiana, New Mexico, and Utah, but these also obtained most of their stores from New York. The outbreak of the Civil War and the fighting in many places distant from the eastern seaboard soon made evident the deficiencies of such a system. At first most regiments attempted to furnish their own supplies but gradually a system of establishing Medical Purveyors at field army headquarters was evolved, with Congress giving its approval to a newly organized and expanded Medical Purveying Bureau in April 1862, and a new Medical Supply Table in July of that year.

While the new Bureau was being established and organized a number of severe battles occurred. Since little help could be obtained from central points, many medical officers in the field improvised methods for obtaining the supplies they needed. For a time Brigade Surgeons acted as supply officers, and it is extremely likely that the major portion of Fletcher's duties when he was on General Sill's staff had to do with procuring medical supplies for the command and furnishing them to the Regimental Surgeons under him. We know from a report of Surgeon Robert Murray on Grant's staff that the Armies in and around Tennessee

suffered greatly at first because of the lack of adequate medical supplies and that Murray was strongly in favor of a separate purveying group in the Medical Department. It can be assumed that he was instrumental in having Fletcher appointed by General Rosencrans as Assistant Medical Purveyor in Nashville almost as soon as such a post was authorized, and it can be further assumed that Fletcher's work in a similar position on General Sill's staff had been outstanding enough to warrant what was a promotion. Fletcher was again promoted, this time to be Medical Purveyor in Nashville, only three months after being appointed Assistant Purveyor. Even more striking, in a time of abundant graft and profiteering on Army contracts, is the testimonial sent him by Surgeon General Barnes on December 1, 1868. "Dr. Fletcher's property and money responsibilities amounted to several millions during his six years of arduous service, and in no instance has he failed to render his accounts with remarkable accuracy and promptitude. The most striking proof of his integrity, energy, and business qualification is the fact that the final settlement of his accounts in August 1867 was accomplished in less than 48 hours without a discrepancy or disallowance." That his position of Medical Purveyor was anything but a sinecure is clear from the fact that the armies commanded by Generals Grant, Thomas, Rosencrans, and Sherman were all provided with medical and hospital materials from Fletcher's office. His ability to get the supplies where needed, when needed, in an orderly fashion and with proper records is attested by Generals Thomas and Rosencrans, as well as by the Surgeon General.

During part of this time, Fletcher acted under his State commission, as Surgeon of the First Ohio Volunteers. In June 1863, however, he took the examinations in Cincinnati for appointment as Assistant Surgeon in the Regular Army, and again in September 1863 he returned to Cincinnati to sit for a higher examination to be appointed Surgeon of Volunteers in the Regular Army. In each case he passed at the top of the list. In the June examination he made 1,050 points out of a possible 1,070, falling down 10 points in anatomy and 5 points each in physiology and surgery, but getting perfect marks in all other nine subjects. The Medical Board which examined him was so impressed with his work that it appended a special recommendation to the certificate forwarded to Washington. "It is respectfully recommended," the Board stated, "that Drs. Fletcher and March be promoted as speedily as consistent with the interest of the service. They have both been on regimental duty since the commencement of the rebellion and from personal knowledge we can say that their reputation for efficiency and skill is highly deserved."

The examination papers which Fletcher wrote for the September 1863

examining board have been preserved in the National Archives, and from them it is possible to ascertain the state of medical knowledge at the time, as well as how carefully Fletcher had kept up with medical advances. It is amazing to read answers prepared by a man who had left medical school 20 years earlier and had not practiced medicine most of the intervening period but who knew intimately the new theories of Virchow on cellular pathology and the researches of Middleton Goldsmith with bromine in the treatment of hospital gangrene. The detail with which Fletcher described various chemical tests for the purity of common drugs is also surprising, even for one previously in drug work, while his suggestions for the treatment of "scorbutic diathesis" mirror the contemporary medical scene accurately.

As a result of these examinations, Fletcher was appointed Assistant Surgeon, U.S. Volunteers, on November 8, 1863, and Surgeon, U.S. Volunteers, and Purveyor on November 20, 1863. To round out his official Army career, it can be noted here that Fletcher was brevetted Lieutenant Colonel and then Colonel of Volunteers from March 13, 1865 "for faithful and meritorious seservice" and was mustered out of the Army on August 31, 1867.

Sometime during the period when Fletcher was assigned to Nashville he brought his family to that city; and there is a legend that his younger son, Robert Howe Fletcher, then a boy of fourteen, wandered off from home in December 1864, and became involved in the Battle of Nashville.

From the volume of correspondence between Fletcher and the Surgeon General on details of his purveying, it is obvious that he was kept busy in his important post; yet he managed to find time to attend a series of medical lectures delivered by John Brinton, Professor at the University of Pennsylvania Medical School, when the latter was assigned to Nashville as Medical Inspector, as well as to cultivate the acquaintance of a number of local inhabitants.

The letters and reports which Fletcher transmitted to the Surgeon General's office in Washington show the range of his responsibilities as Medical Purveyor and the detail with which he was faced. For example, on June 19, 1863 he noted that 3,000 pounds of concentrated milk had been omitted from the requisition and he asked that Dr. [name undecipherable] be telegraphed to send 1,000 pounds at once. On October 25, 1863, he reported that 20 medical wagons shipped by the Medical Purveyor in June had still not been received. On December 16 he transmitted a special requisition, in compliance with specific orders of General Grant. In 1864 he inquired about issuing bed-sacks and pillow ticks in place of mattresses and pillows. In September of that year he wrote again about 250 iron bedsteads sent to Nashville by mistake. On October 3 he re-

quested authority to buy printing paper locally for use of the Surgeon in charge of the hospital. Still in 1864 he reported a great loss of bromine resulting from the current mode of packing it and suggested the use of hermetically sealed tubes in the future. During a battle in July 1864 he urgently telegraphed to Washington for special supplies and followed this up with a letter explaining in more detail. He was concerned with the amount to be paid colored cooks and nurses; wondered if the First Bank of Nashville was recognized as a depository for government funds; reported monthly on the amount of ice distributed; ordered the payment of vouchers for the care of insane soldiers at the Tennessee Lunatic Asylum and explained this to the Surgeon General; requested authority to sell books and instruments to medical officers leaving the service; asked if he could pay laborers the rate paid by other departments of the Army (and was refused); wished to pay white female nurses 60 cents a day; and, after the end of the War, recommended the discharge of some of the hospital stewards, the sale of some of the government property locally, and the transfer of other property to civilian hospitals nearby.

Interspersed with these official letters are others of a more personal nature. Fletcher requested leave of absence to take the examinations for Assistant Surgeon and Surgeon of Volunteers. On May 5, 1866, he asked for and was granted 30 days leave, during which he came to Washington to see about a permanent position in the Purveyor's Office, and while there found he needed more time and requested an extension of his leave for 15 days. Finally, on October 10, 1866, he tendered his resignation, to be effective December 10, and requested permission to close his accounts as Medical Purveyor in Cincinnati rather than Nashville because of private family business. The actual date for his mustering out was, as noted earlier, not December 1866, but August 31, 1867.

III

When Robert Fletcher was mustered out of the Army he was forty-four years old, married, and the father of three children in their teens or early twenties. There were a number of possibilities for earning a living before him. He had been educated as a physician, and although he had not practiced for any long periods of time, it was quite possible for him to return to that profession. According to family tradition, he seriously considered this course of action, only to be reminded by his wife that this would require his being at the beck and call of anyone at all hours of the day and night. He had also been in the drug business for about seven years, longer than in any other enterprise, and it might have been logical for him to resume this vocation. Yet he had not returned to this when he came back from his European visit in 1857, and perhaps

the same considerations kept him from it in 1867. The seed company and commission merchant venture had lasted only a short time and apparently had not been wholly satisfactory. Even before he left the Army, therefore, he set about trying to obtain a permanent position in the Regular Army.

The War had naturally caused the expansion of all sections of the Army, not the least of them being the Purveying Bureau. With the advent of peace, the citizen-armies on both sides of the conflict were disbanded, and those corps which, because of their auxiliary positions, had depended upon the size of the total Army to determine their own magnitude also had to contract. Congress set about limiting the size of the agencies drawing funds from the government, and from 1866 to 1879 passed a series of laws establishing the maximum size of the Army and its components. A major reorganization act for the Army was approved by Congress on July 28, 1866, but a discussion of its provisions had been going on for some time prior to that date. This act provided, among other things, for a Medical Corps which included a Chief Purveyor with the rank of Lieutenant Colonel and four Assistant Medical Purveyors, five medical storekeepers, and a certain number of surgeons (at first less than 75).

As early as December 12, 1865, Fletcher was hoping to receive an appointment as Assistant Medical Purveyor, for on that date he wrote to Surgeon General Barnes that he "would be glad to receive an appointment as medical purveyor in the Army if such a corps is established." His appointment was recommended by General G. H. Thomas in a letter to the Adjutant General, General L. Thomas, where it evidently remained for a long time before being forwarded to General Barnes for consideration.

Fletcher, however, had not been idle in the meantime. On August 25, 1866, he made a formal personal application for the position to the Surgeon General, and during the same week wrote to the Honorable W. Dennison, Congressman from Ohio, asking for help in getting the appointment he desired. Dennison forwarded the request to the Surgeon General's office where it was endorsed by the Assistant Surgeon General, C. H. Crane, who noted, without giving details, that Fletcher was not eligible for this position according to the law, and pointed out that those recommended for the office had, with a few exceptions, held their posts for 20 years.

Simultaneously the politician and journalist Rufus King of Cincinnati wrote on Fletcher's behalf to the Attorney General in Washington, the Honorable H. Stanbury, suggesting that pressure be put on the Secretary of War or the President to have Fletcher appointed "under the

new Army bill." King set forth Fletcher's qualifications for the post, stating that he was "practically experienced by some years actual dealing in the Drug and Apothecary business in this city" and noting that he "had graduated in the London College of Surgeons." (This chatty personal letter also recounts, "P. S. The cholera is rapidly disappearing and politics are growing hot.")

In addition, on August 26, 1866, Alphonso Taft of Cincinnati, later to become Secretary of War and Attorney General in Grant's cabinet, and father of President William Howard Taft, wrote to Secretary of War Stanton recommending Fletcher for the post he desired, while several months later a group of prominent Ohio friends signed a joint letter to President Andrew Johnson urging the appointment.

Apparently nothing came of all this pressure and finally Fletcher turned to other ways of supporting himself and his family, but he did not really give up his hope for the purveying position for some time. On August 5, 1867, he visited the Surgeon General's office in person to discuss closing out his Nashville accounts and the possibility of a permanent position. As late as March 4, 1869, he addressed a letter to Major General J. A. Rawlins enclosing a request to the new President, General Grant, that he be appointed Assistant Medical Purveyor of the Army in place of Dr. Satterlee of New York, who had just died. It is obvious from Fletcher's language to General Rawlins that he did not agree with Assistant Surgeon General Crane's statement that he was not qualified for the position under the law. "My Army friends thought I was well entitled to [the position] by my services," he noted bitterly, "out of which I was juggled by the politicians." His enclosure was received at the Executive Mansion on March 18, 1869, with an endorsement by Surgeon General Barnes: "Under the Act of Congress, approved March 3, 1869, no new appointments can be made in the Medical Department of the Army until otherwise directed by law." The entire file was again examined by General Whipple on December 31, 1872, but no appointment was forthcoming as a result of it. By that time Fletcher was working as a civilian in the Surgeon General's Office in Washington under J. H. Baxter, who had in 1867 received the appointment for which Fletcher aspired and then been promoted to Chief Medical Purveyor, and presumably Fletcher was not interested in seeking further appointments.

Since a position with the Army was not immediately forthcoming in 1867, Fletcher had to seek other methods for supporting his family in Cincinnati. The city directory for 1868 notes that he was "Treasurer, Cincinnati Elastic Sponge Co., s.w.c. 4th and Race; h. 142 Broadway." No indication is given in the alphabetical portion of the directory of what the Elastic Sponge Company was, but in the classified portion it

is listed as a manufacturer of mattresses and bedding. In the 1869 directory the alphabetical list notes that the company is a manufacturer of bedding and gives a new address for it, 176 Main Street. It is not known what kind of bedding "elastic sponge" was, though we can assume it was not today's foam rubber. Presumably Fletcher remained with the company until he left for Washington in 1871.

There is a gap in our knowledge of what happened to Fletcher between March 4, 1869, and August 7, 1871, but we do know that on the latter date he reported for duty in the Surgeon General's Office under Lieutenant Colonel J. H. Baxter, Chief Medical Purveyor and formerly Chief Medical Officer of the Provost-Marshall-General's Bureau. His duties were to assist Colonel Baxter in preparing the medical records of the Bureau for publication, and he remained in that position until August 31, 1876 when he was ordered to report to John Shaw Billings at the Surgeon General's Library.

The Provost-Marshall-General's Bureau had been created by Congress on March 3, 1863, in an effort to do away with the acceptance of unfit recruits into the Army. It was in charge of all volunteer enlistments and drafts, and when its Medical Branch was organized on January 11, 1864, it began actively to supervise the medical examination of recruits. By the time it was discontinued, in August 1866, four drafts had been made and almost one million men examined, with acceptable records available for about one half of them. In discontinuing the Bureau, Congress specified that the Secretary of War should turn over the records to the then Chief Medical Officer of the Bureau, who was directed to compile the statistics and publish a report on them. Work began soon after, but it was not until 1875 that the two volume set, *Statistics, Medical and Anthropological, of the Provost-Marshall-General's Bureau*, finally was printed.

In this work over 5,000,000 sets of figures were reduced to more than 5,000 preliminary tables and these further digested into 23 final tables, comprising just over 113,000 ratios. (Rates were given per 1,000.) This work was all done by hand, although "after the tables forming the second volume had been stereotyped, the completion of an improved 'calculating engine' seemed to offer the desirable opportunity of testing the accuracy of the work done." Consequently all the ratios were recalculated with the new machine, although this delayed the final appearance of the volume.

In addition to the purely anthropometric information, which made up the body of the work, there were tables of rates of diseases broken down by place of origin of the soldiers and by race and nationality, with a few ecological maps interspersed. The preface of the first volume con-

tained a description of the medical examination systems of the armies of the United States and the principal European countries, a discussion of schemes of classifying physiological and pathological data, and a scholarly twenty-five page "Outline of the History of Anthropometry" including a four page bibliography of background reading. No authors were given for the individual sections of the *Statistics*, but later publications point to Fletcher as the compiler of the "History" and the bibliography. In the preface Colonel Baxter remarked: "In the preparation of the work, I have been very materially aided by the professional and scientific attainments of the following gentlemen, who have been on duty in the office, viz.: . . . Robert Fletcher, M.D., late surgeon and brevet colonel, U.S. Volunteers . . ."

The two volumes of the *Statistics, Medical and Anthropological* . . . received universal acclaim. The *American Journal of the Medical Sciences* called it "a magnificent contribution to our exact knowledge of man," and commented on the "tremendous labour . . . encountered in assorting and arranging the collected material in such manner as to exhibit the millions of facts in all their different aspects and in forms available for use." It finally concluded, "The book is a monument of almost incredible labour of a sort little appreciated by the world." The reviewer for the *Boston Medical and Surgical Journal* was more restrained, but he referred to the "vast facilities of the government for the accumulation of reliable statistical information," and noted "what services may be rendered to science by a wise utilization of such opportunities. The work before us belongs to this class." Virchow, in his *Jahresbericht über die Leistungen und Fortschritte der gesammten Medicin*, praises the set highly as "eine der vollständigsten Arbeiten welche überhaupt Resultate dieser Art behandeln."

Even those attached to the Surgeon General's Office in other capacities were aware of the value of the work. Colonel George A. Otis remarked in a letter to Fletcher of June 1876, "I am glad, dear Doctor, to have the opportunity of expressing to you my congratulations on the completion of your share of the admirable Medical Statistics which display such a great amount of conscientious labor, and of labor wisely directed, and constitute such valuable addition to anthropological knowledge."

Perhaps the most useful result of the *Statistics* to Fletcher personally was that it gave him the direction for the remainder of his life. With the publication of the two volumes, Fletcher was again faced with a decision about his future. Many years later John Shaw Billings related the circumstances which brought the two men together in the fruitful collaboration which was to last almost twenty years. Speaking at a banquet in honor of Fletcher in 1906, Billings remarked:

Thirty years ago I had issued from the Government Printing Office a specimen fasciculus of an Index Catalogue of the Library of the Surgeon General's Office, showing the plan of the work upon which I had then been engaged for several years.

Soon after this publication Dr. Fletcher, having completed his work on the Statistics of the Provost Marshal General's Office, came to me and expressed his general approval of the specimen fasciculus, saying that he would be glad to assist in the work of preparing and printing the proposed catalogue. I knew him to be a most competent and reliable Medical Officer, a statistician and a writer of excellent English, and accepted his offer with great pleasure.

From that time until I left the Office in 1895 we worked together in the Index Catalogue, and I soon became satisfied that the obtaining of his aid in this matter was a piece of great good fortune. I came to have a high respect for his scholarship and painstaking accuracy, to admire his energy and perseverance, to appreciate his humorous wisdom, and to know him as a thoroughbred gentleman. Moreover I acquired a great affection for him—a warm friendship which has continued unchilled and unbroken down to the present moment, and I am very glad to have this opportunity to say that he deserves every honor and token of appreciation which the Medical Profession of the Country, and indeed of the Civilized World, can bestow upon him.

Thus, after 53 years, Fletcher had finally found his *métier*. On September 1, 1876, in pursuance of orders of the Surgeon General, he reported to John Shaw Billings at the Library of the Surgeon General's Office.

IV

When Robert Fletcher entered the Library of the Surgeon General's Office, it was in the midst of the expansion which was to make it by the end of the century the largest medical library in the western hemisphere and one of the half dozen largest medical libraries in the world. Begun by Surgeon General Lovell sometime around 1836, by 1840 it had about 200 volumes, and a catalog of 1864 listed over 1,360 volumes, most of which had been gathered for use in preparation of the *Medical and Surgical History of the War of the Rebellion*. By 1876, when Fletcher arrived, the Library had 52,000 books and pamphlets and was growing at a great rate of speed; by 1895 it would contain more than 110,000 books and almost 200,000 pamphlets.

Fletcher spent the last thirty-six years of his life in the Library of the Surgeon General's Office. At an age when most men are considering the possibility of taking their ease in life he began an entirely new career, and a career which was to present him with the opportunity to demonstrate his best qualities. It might almost be said that Fletcher did not really find himself until he was past his fiftieth birthday, but that when he had discovered a position in which his talents could be put to good use, he blossomed forth. Gone were all the doubts, the drifting, the changes in occupation, the numerous financial ventures; now Fletcher knew where he was going and how to get there. In one sense it can be said that the first

fifty-three years of his life were the training for his last thirty-six. If his early life were completely blotted out, his position in the history of libraries and bibliography would always be secure because of these final decades. The Library of the Surgeon General's Office, the *Index-Catalogue*, and the *Index Medicus* are his, as well as Billings', memorial and "float through history," as Osler phrased it.

On September 1, 1876, then, Robert Fletcher came to the Surgeon General's Library for a salary of \$133.33 per month, plus \$36.00 for commutation of quarters, and \$12.00 for fuel, making a total salary of \$181.33 a month. Later the commutation of quarters was cut to \$12.00 per month, and in 1880 it was proposed to cut off the fuel allowance completely. At this point Fletcher suggested that the government pay him a flat \$150 monthly. In forwarding this petition, "approved and recommended," Billings noted:

The duties, with which Dr. Fletcher is charged, in connection with the Library of this Office, can only be performed by a thoroughly educated physician, who can read German, French, Italian, Spanish, and English, and who is familiar with bibliographical work, and with both ancient and modern medical nomenclature.

This unusual combination of qualifications is possessed by Dr. Fletcher in a high degree and the work which he has done is eminently satisfactory, both in amount and quality.

The pay which he was receiving, prior to the recent change in contract, was certainly small for such work, and I think that his request is a very modest and reasonable one, which should be granted if it be possible to do so.

J. S. Billings,
Surgeon, U. S. Army

Library Surg. Gen'l's Office,
Washington, D. C.
January 3, 1881.

This the Surgeon General agreed to, and a contract was drawn up between his office and Fletcher; in it Fletcher was designated "a private physician serving as Acting Surgeon, with the rank of First Lieutenant." Still later, in 1903, Fletcher's salary was raised to \$3,000 a year, a fairly respectable sum for those days, which, with his remittances from England, allowed him to live in comfortable style. No further increase in his salary is noted in the records.

At the time he came to the Library, Fletcher was already fifty-three years old while Billings was only thirty-eight, yet neither then or at any other time were their relations any thing but cordial and harmonious. Billings' complimentary words on Fletcher, quoted earlier, were no formal or traditional remarks without substance and backing, nor was this the only time he expressed his appreciation of Fletcher's work. The preface of the first volume of the *Index-Catalogue* contains Billings' graceful acknowledgment of aid. "I wish," he said, "to specially acknowledge the valuable assistance

which I have received from Dr. Robert Fletcher in carrying this volume through the press, assistance which has gone far beyond mere routine or the limits of office-hours, and without which I should have found it impossible to have done the work and to have performed my other official duties." In a later volume he noted that "the accuracy and typographical excellence of the volumes are largely due to Dr. Fletcher's careful and skillful supervision." To all who worked in conjunction with the two men, their liking and appreciation for each other was evident. Fielding H. Garrison compared their personalities thus in his biography of Billings: "Dr. Fletcher was a true scholar, especially learned in the classics and the older English literature, and, during his long life, he made many valuable contributions to anthropology and the history of medicine. He was a man not unlike Billings in character—forceful, reliable, honourable—but of a different caste of mind. Billings was essentially the man of action who delights in doing things of immediate practical moment. Fletcher's was the spirit that loves to browse and delve in the lore of the past, although, up to his ninetyeth year he took the keenest interest in all advances in medical science. Both were well-trained physicians and surgeons, both were of the same race, both had the same literary and social tastes. Thus the two men were admirably adapted to do effective team work; indeed, as Professor Welch once remarked, 'they worked beautifully together.'³"

The proposed publication of the *Index-Catalogue* was only one reason for hiring Fletcher at this time. A more immediate need was for a medical officer who could be placed in charge of the Library for a period of several months while Billings went to Europe in connection with his work on building of the Johns Hopkins Hospital in Baltimore. Billings sailed on the steamship "Batavia" from Boston on October 7, 1876 in company with Dr. Ezra M. Hunt, a sanitarian also concerned with the Johns Hopkins Hospital, and arrived in Europe on October 16. In Europe he visited England, Germany, Austria-Hungary, Italy, and France before returning to the United States from Liverpool on December 16. During this three month period Fletcher was in charge of the Library, although he had been attached to the institution for only about a month before Billings left. That this job was not a sinecure is shown by the number of letters dictated by Fletcher to F. W. Stone, Billings' "private clerk," or signed by Fletcher after being written by other members of the staff. Also to be found in the Library's files are memos by Fletcher to individual members of the staff. Apparently the only restriction put on Fletcher at this time was that he was not to order new books or journals until Billings' return.

The items in the Library's files for the period October–December 1876 which are signed by Fletcher probably equal if they do not exceed the

³ Attributed to Osler by Sir Humphrey Rolleston.

signed communications for all the rest of Fletcher's time with the Library. By Army custom and by natural predilection, Fletcher prepared many items for Billings' signature, as is evident by the handwriting of the memos, letters, and reports. It is interesting to speculate whether this "passion for anonymity" might not have been one of the traits which endeared him to Billings; an older man gaining a name for himself under the command of a younger man might have caused some personal difficulties, even with such men as Billings and Fletcher, who were both capable of thinking and acting independently. In a certain sense, Billings needed someone to go behind him and carry out quietly and efficiently the plans which he could so brilliantly devise, and Fletcher filled this need admirably. The obverse of the coin is Fletcher's delight in detail and accuracy, evident in his Army days, his great administrative ability, and his flexibility when alternate plans needed to be devised and carried out. In a certain sense, Billings proposed and Fletcher disposed; and between them they could act as one person.

Many large and advancing institutions, including libraries, have evolved a pattern of complementary personnel. There is frequently a chief who sets the policies, has the flashes of inspiration or hammers out new goals and new methods, and does the necessary work to convince governing powers to allocate funds or otherwise support the goals he has devised. Such a man frequently has as his assistant a person whose ability at devising fresh approaches and envisaging enlarged purposes are less than the chief's but whose sympathy with the aims of the chief and ability to carry out the details of the schemes devised are particularly great. Because these two can work together harmoniously, their synergistic effort comes to be greater than the mere total of the efforts of each one. In such a case it frequently happens that the one carrying out the plans remains a shadowy background figure to most of those who use the institution or its products. Thus it was for Robert Fletcher.

The 36 years that Fletcher spent in the Library represent some seven times the amount he spent in any other professional pursuit during his lifetime, and the work was evidently a labor of love. Having reached this position there was no turning away to another one, no leaving it for another profession, and the importance of his work there was acknowledged by many.

Fletcher concerned himself with many parts of the Library's work; we know that he checked booksellers' catalogs for additions to be made to the collection, and the thanks he received from William Osler and Rudolph Matas for uncovering needed information shows that he assisted some of the Library users. He was to be most concerned, however, with cataloging and indexing.



FIG. 2. Fletcher and Fielding H. Garrison
Working on the *Index-Catalogue*

Billings hoped to bring to the attention of physicians all over the world the contents of the Library of the Surgeon General's Office. Although indexes to medical periodicals had been published for a century or more, and although some indexes contained both books and journal articles, no scheme as ambitious as Billings' *Index-Catalogue* had ever been proposed. In it was to appear not only the books contained in the Library collection but the articles in the individual issues of the journals, transactions, and other serial publications which made up the bulk (and the most important portion) of the Library. By the third quarter of the nineteenth century the literature of medicine had grown to such proportions that a work which attempted to catalog books and index journals would not only be extremely large but would also be complicated to prepare and use. If it were not to fall of its own weight, careful attention had to be paid to details such as the method of indexing, the headings used, the typography, the press work, the accuracy of the citations, the form of the references, the abbreviations, and the like. After many experiments Billings in 1876 finally put out a specimen of what he had in mind and asked for suggestions and comments. With these in hand he proceeded through his ally, Surgeon General Barnes, to persuade Congress to appropriate money for the printing of the entire work—which he estimated would be complete in five quarto volumes, but which actually took 16 volumes to finish.

Working with Fletcher, Billings issued the first volume of the *Index-Catalogue of the Library of the Surgeon General's Office* in 1880.

The *Index-Catalogue* is not only a list of books, pamphlets, theses, and journal titles contained in the Library, arranged under author (or title) and subject, but is an index to the journal articles, arranged by subject. The whole work is in one array, authors and subjects following each other in proper alphabetical sequence. The volumes were issued letter by letter beginning with A—Berlinski in 1880; 16 volumes and 15 years were needed to see the entire first series through the presses, and by that time enough additional material had accumulated to make the publication of a second series desirable. The second series was in its seventeenth volume (the T's) when Fletcher died in 1912 in his eighty-ninth year, having read proofs up until his final illness a few days earlier.

Nothing like the *Index-Catalogue* had ever appeared before. In its scope and richness of information, in its accuracy and thoroughness, in its ease of use and inexpensive price it outdid all other similar works. William Osler called it "one of the most stupendous bibliographical works ever produced." Contemporary reviewers said of it that it was "without exception the most valuable contribution to medical bibliography which has ever been made in any part of the world." Only one person appears to have noted what was later to be its fatal flaw. Dr. W. Gairdner in a private letter to Billings in 1880 remarked, "The only possible drawback is one inseparable from the material, which will necessarily supersede, or at least render incomplete, the earlier volumes before the later ones are published." Billings and Fletcher were already aware of this disadvantage and had set about to remedy it by the immediate publication of a supplementary work, the *Index Medicus*.

The *Index-Catalogue* appeared letter by letter; this meant that fifteen to twenty years might elapse before material on a particular subject would be published. The solution of Billings and Fletcher was the publication of a monthly index to the medical literature, complete from A to Z in each issue. There were four main differences between this monthly list, the *Index Medicus*, and the more monumental cyclical publication, the *Index-Catalogue*. The first difference has already been mentioned: the *Index Medicus* appeared monthly and was alphabetically complete. Second, it included only new literature, being in this way different from the *Index-Catalogue*, which listed all the Library's new acquisitions, whether they had been published recently or were early manuscripts. Third, the contents were, at least during the time Fletcher was in charge of it, arranged in a classified order, based upon a scheme of classification used by the British Registrar General for returns of births and deaths and taken over for the medical and anthropological statistics of the Provost-Marshal's

Office after the Civil War. This was in contrast to the *Index-Catalogue*, which was arranged alphabetically with author and subject entries interfiled.

The fourth great difference between the two publications was that the *Index-Catalogue* was a government publication, compiled, printed, and distributed by the government, while the *Index Medicus* was a private venture of Billings and Fletcher, completed outside working hours, published by several private firms in succession, and distributed for a subscription price. A description of the compilation of the latter is furnished by Garrison in the volume of the *Index Medicus* edited soon after Billings' death. The cards which had been made for the *Index-Catalogue* during the day were farmed out to the wives of the Library's male clerical force, who copied them in the evening and returned them to the Library the next morning. Billings and Fletcher assigned the subject headings and made the author and subject indexes on their own time; then at the end of the month, the manuscript was sent to the printer in Philadelphia. Galley proofs were read mostly by Fletcher.

It is interesting to speculate upon the reason for the differences between the two publications. No evidence remains to indicate what principles led Billings and Fletcher to vary their products in this way. We can surmise, from the format of the first few numbers, that the early issues of the *Index Medicus* were conceived of as a bibliographic journal, with short articles and queries and answers in each issue, as well as the list proper. Such a mixed magazine has had a long history in national bibliography; the *English Catalogue of Books*, the *Bibliographie de la France*, the *Halb-jahrsverzeichnis* in Germany, as well as *Publishers' Weekly* in the United States, have all started with and some have continued in this pattern. It may be that the compilers of the *Index Medicus* merely followed a pattern with which they were familiar, and that only the lack of outside contributors and the burden of preparing the list itself forced them soon to abandon it.

It is also comparatively easy to form a theory about the use of a classified list instead of an alphabetically arranged one. A monthly publication, meant to be superseded finally by another (the *Index-Catalogue*), and intended to be subscribed to by individuals, would logically be arranged by classified subjects, since presumably the immediate and daily use would be by those who wished to "keep up" with the publications in their fields and those immediately contiguous to them. The particular classification scheme chosen can also be explained; it had been used by Fletcher on the Civil War statistics, and familiarity probably suggested its use for the new work.

Less easy to understand is the decision to publish the *Index Medicus* as

a private venture. The cost of bibliographic publications and the returns likely to be received for them have never borne much relationship. It is hard to believe that Billings, at any rate, was not aware of this fact; but had he been ignorant of it, a few years' struggle to build up the subscription list and to make the publication self-supporting, if not profit-making, would have convinced him of this truth. The private publication of a work so closely allied to his public duties would today place a government official under the suspicion that he was somehow using his public position for private ends. It is true this duality was not taken so seriously then as now, as is shown by Billings' work for Johns Hopkins University and Hospital and by the teaching commitments of many of the top Library staff, but it would seem that some question might well have arisen in outsiders' minds about such a situation. No evidence of this has appeared, however.

A possible explanation of the decision not to send the *Index Medicus* through the government presses may be afforded by the history of the struggle to get the *Index-Catalogue* published and distributed. Although Billings had the cards for the latter ready for publication for some time, he was not able to persuade Congress to appropriate the money for printing the volumes, and he finally had to enlist the aid of Abraham Jacobi of New York and other well known physicians, who brought strong pressure on Congress to allow the *Index-Catalogue* to be printed. Even so, the number of copies authorized was so small that Billings often had to refuse requests for sets of the early volumes; indeed, in early years such letters of refusal frequently included a statement suggesting the inquirer write his Congressman urging larger appropriations for printing.

After such an experience, it can easily be conjectured that Billings felt a monthly publication would not be possible under governmental appropriations; he may even have been weary of the necessary politicking and the constant obligation under which he was placing himself and decided to try private means of bringing the information to those who needed it. This may explain also why the first issue of the *Index Medicus* appeared a year earlier than the *Index-Catalogue*, though both were from the same cards.

Whatever the reason for it, the *Index Medicus* appeared as a private venture in 1879 and promptly lost money. During its existence, the subscription price went from \$3.00 to \$25.00 per volume without helping the financial situation very much. The original publisher gave it up to another, and finally in 1899, it had to suspend publication because of financial difficulties of its printers. After three annual volumes of a very poor substitute (*Bibliographia medica; Index Medicus*) had appeared in France, it was decided to revive the American *Index Medicus* as a semipublic venture, with the financial backing of the Carnegie Institution, of which

Billings was President. Fletcher took a firm hand in the planning for the new series. In a letter to Dr. Charles D. Walcott, Secretary of the Carnegie Institution, dated January 3, 1903, Fletcher said,

Your letter of December 3, 1902, advising me of the resolutions adopted by the Trustees of the Carnegie Institution in regard to the publication of the *Index Medicus* was duly received and acknowledged. I have resolved to accept the proposal to become Editor in Chief of the journal with the understanding that I am to have the assistance of Dr. Fielding H. Garrison as Associate Editor. I can assure you of his competency for the position, which he has agreed to accept.

It is proper to remind you of the opinion which I expressed first in a letter to Dr. Billings, and later to yourself in our interview, of the probable insufficiency of the appropriation made by the Trustees, namely \$10,000 for the first year's expenses of the undertaking. Since I ended the publication of the *Index Medicus*, nearly four years ago, the quantity of medical literature in the world has materially increased. In a test which I have made during the past month of the number of cards to be copied I find the increase to be fully one third. This means a proportionate increase in the bills for everything up to the Annual Index inclusive. My estimate is as follows:

Cost of Vol. XXI (last published) about	\$ 6,200
Add $\frac{1}{3}$ for card-writing, proof-reading, etc.	2,067
Add for increased cost of printing, paper, etc.	1,500
Editors' salaries: \$1200 and \$600	1,800
	<hr/> \$11,567

So, that in my opinion, the appropriation for the first year should be \$12,000. To this view both you and Dr. Billings assented. The subscriptions will be [sic] reduce the amount needed, but I think they should not be relied upon to any extent the first year.

In pursuance of our agreement I have had a circular notice printed (which was submitted to you for approval) and 2000 stamped envelopes have been directed and are now ready for mailing. I had a card directory of carefully considered addresses prepared, and this I propose to send to you for convenience of reference when the subscriptions begin to reach you. About half of these circulars go to foreign universities and schools, the remainder in the United States. I append to this letter a copy of the circular notice.

I have made formal application to the Surgeon General of the Army, General O'Reilly, for permission to have the office cards copied for *Index Medicus* use. It was gladly granted.

I may add that Rockwell and Churchill of Boston, who printed the 21 volumes of the *Index Medicus* did most excellent work which was the admiration of our subscribers. They procured expensive fonts of accented type (there are often twenty languages represented in the work) and they have skilled workmen who know how to use such type. I talked with the Chief of one of the principal printing offices in this city, but he fairly admitted his inability to undertake the kind of composition required.

There are many miscellaneous expenses which should be paid from a ready money fund. I think it would be well for me to make the requisition for a small amount as needed from time to time. A statement of these disbursements with vouchers can be

sent monthly or quarterly as you desire. I enclose such a requisition for \$300 out of which to begin with the expenses of the circulars and envelopes may be defrayed.

In his eighty-eighth year Fletcher tendered his resignation as Editor of the *Index Medicus* to the Carnegie Institution to take effect on December 31, 1911. Robert S. Woodward, the President of the Institution, replied, "... the Executive Committee ... accepted [it] with the warmest expressions of regret that advancing years should make this step necessary, and with expressions of admiration for the scholarly and painstaking labors you have so long devoted to the preparation and publication of the *Index Medicus*." Then, at the suggestion of Fletcher, they appointed Fielding H. Garrison the new editor.

With all these years of bibliographic endeavor, it is disappointing that so little direct evidence of what Fletcher did in the Library can now be uncovered. There are suggestive data, as when we are told by Osler, in his obituary sketch of Fletcher, that the first time he came to the Surgeon General's Library Billings put him in the charge of Fletcher, from whom he continued to receive much aid over the years, or Kelly's comment on Fletcher's "rare scholarship and that courteous and cheerful spirit of helpfulness which has endeared him to the entire profession of the United States." In spite of this, the Library files show almost no primary documents. A search of the National Archives does not reveal any data beyond Fletcher's Army career and his subsequent attempts to obtain a government position, plus a few scattered fiscal documents on his contracts and pay. His family retains no Library material from this period of his life. If he wrote or received personal letters pertaining to Library matters, these have not been preserved. But in all probability the Library of the Surgeon General's Office could not have risen to the position it did or have accomplished as much for the good of medicine without the devoted, exacting, and painstaking scholarly work of Robert Fletcher.

V

During the period that Fletcher was attached to the Library, he taught medical jurisprudence at Columbian (now George Washington) University in Washington and at the Johns Hopkins University in Baltimore; was one of the founders and for a number of years President of the Anthropological Society of Washington; was President of the Philosophical Society of Washington, the Literary Society, and the Cosmos Club (a social club of scientists and high government officials); and published a number of papers on literary, philosophical, and anthropological topics. He amassed a large private library which was sold at auction after his death, and the sale catalog attests to the wide range of his interests. In addition to all this, however, Fletcher was an excellent conversationalist and a *bon*

vivant of the first water. On the latter point, for example, Osler notes that "it was a rare treat to dine with him quietly at his club in Washington. He knew his Brillat-Savarin well, and could order a dinner that would have made the mouth of Coelius Apicius to water," while his grandson complained about the portrait of Fletcher now in the Library: "It made my grandfather look too frail and almost ethereal, for besides being a scholar he was pretty much of a man." After his wife's death in 1889 Fletcher moved to a commodious apartment in Washington's first apartment building, the Portland on Thomas Circle, where he lived until his own death in 1912, and where he was known as a tall, well groomed, courteous, typical "gentleman of the old school." As Garrison wrote to Harvey Cushing in 1912, "he was everything we expect the English gentleman of the highest type to be."

Anthropology. A sketch of Robert Fletcher done in 1893 by P. Rénouard for *Harpers' Weekly* has as shadowy figures in the background behind Fletcher's head some characters out of English literature, while before him on the desk are a number of skulls. In this way the artist attempted to indicate some of the fields with which Fletcher was connected and to which he had made significant contributions. It is difficult to know when Fletcher first became interested in the field of anthropology, although it is probably safe to say that his work on the statistics of the Civil War intensified whatever interest he had had in this field earlier. Fletcher compiled the history and bibliography of anthropometrics in the Baxter volumes; whether this was due to his previous interest in and knowledge of the subject, or whether the historical sketch and bibliography brought forth an interest in the subject is hard to determine. From this time on, however, Fletcher read deeply in the subject, collected in it both privately and for the Surgeon General's Library, published a few articles, and helped to bring into being an organization in Washington where all those interested in the subject could come together for discussions.

Anthropology in the 1880's, when the Anthropological Society of Washington was getting under way, had not yet been so extensively subdivided as today. The line between physical and cultural anthropology had not been drawn with present-day rigor, and the study of primitive societies was still being undertaken by amateurs, for the most part—travellers looking for the quaint and surprising, colonial officers whose main interest was in retraining "natives" into European ways, and missionaries searching for the evidences of cultural evolution inevitably leading to what they considered the highest form of the good society, western Christianity. At the same time that the Parisian school of Paul Broca was emphasizing the collecting, description, and classification of anthropological facts (for example, by the establishment of museums of skulls and other bones and the classification of primitive religious beliefs), the Italians under Lom-

broso were attempting a correlation between physical form and social characteristics. Anthropology was thus breaking up into a study closely allied to anatomy on the one hand, and one allied to the social sciences (especially penology) on the other.

Fletcher appears to have been interested in both aspects of the subject. He collected catalogs of the holdings of museums of physical anthropology in Europe and the United States with the same assiduity with which he added to the Library works on Siberian shamanism, American Indian burial practices, and crime detection among various peoples. He wrote, for example, both on prehistoric trephining and on the new school of criminal anthropology. Undoubtedly he was partly influenced in this field by the presence of the Army Medical Museum in the same building with the Library, with its collections of anthropological materials and an active staff including such people as William Woodward and Daniel Smith Lamb, and partly by his earlier work with Baxter. But perhaps as influential as any of these was Fletcher's catholic interest in all human affairs. Like Terence, he could say, "Humani nihil a me alienum puto."

In anthropology, as in a few other subjects, Fletcher's importance is as a catalyst and as an instigator of interest in others, not as one who does fundamental research on his own or makes useful additions to man's knowledge of the subject. He was basically a middleman-librarian, what Billings in another context called "a hod carrier," helping to build the intellectual edifices of the future. A list of Fletcher's writings in the field of anthropology does not reveal any work comparable to the bibliographic publications he was turning out at the same time. By the very fact that he was instrumental in founding the Anthropological Society and continued as President during its formative years, however, he was useful to the field, providing a forum for the people who were making the real advances in the new science. Nor is this a minor matter. If science is cumulative, then each scientist must know the work of the people in his field in order to build on it. Without such communication, each person must discover for himself all that has already been known. Throughout the history of science, the importance of the founding of scientific societies in the forward development of knowledge cannot be stressed too strongly. The Anthropological Society of Washington may not have been another Royal Society or an Accademia dei Lincei, but within its own sphere it was as important as these, and to Fletcher must be attached some of the glory of this fact.

Literary work. As a young boy Fletcher had kept a commonplace book, which is still preserved. In it, whether under pressure from some adult or by his own design, he copied bits of prose and poetry which had interested him. This collection shows the wide tastes of the boy, for material in

English, French, and German, and on a variety of subjects is included; the foundation for his future deep interest in the works of Shakespeare is also shown. A few moral precepts are dutifully copied out, but for the most part the passages selected recount some stirring event or describe the beauty of nature. Wide reading in all literature, but especially in Shakespeare, an interest in people, and a delight in nature were to be characteristics of Fletcher all his life.

The wide range of Fletcher's reading and the ability to quote pertinent passages at will made his conversation a delight to all those about him. As noted earlier, Brinton had commented on Fletcher's conversational powers, which he enjoyed while both were stationed at Nashville during the Civil War. Osler recalled in later years how a group of the physicians from Johns Hopkins frequently would join Fletcher at Dr. Hurd's after Fletcher's lectures at the medical school and partake of a meal and wonderful conversation. Garrison mentioned Fletcher's conversational style with such respect and enjoyment that it is interesting to conjecture if the younger man's famous style might not have been modeled, consciously or unconsciously, on the older man's. ("I think of the Doctor as one of my very best and kindest friends," he wrote Osler in 1912.) Even as late as 1959, Dr. W. W. Francis of McGill University, cousin of Osler, recalled with nostalgic pleasure Fletcher's conversational encounters when both dined at Osler's home in the 1890's. Apparently all who heard Fletcher discourse came away delighted, dazzled, and completely enthralled.

As in anthropology, so in belles-lettres Robert Fletcher did very little scholarly research. A few of his writings, such as the article on the robin redbreast in English literature, medical lore in older English dramatists, or word derivations in old English, are useful and enjoyable compilations. In a sense, they are truly library works—a kind of annotated bibliography strung together—but in no sense do they contain new insights or new conclusions derived from the information amassed. A request which he received in February 1890 from Dr. S. P. Langley, Secretary of the Smithsonian Institution, shows the kind of use to which Fletcher's encyclopedic literary knowledge could best be put. Langley wrote:

My dear Doctor Fletcher: . . . I would esteem it a very great favor if you could furnish for certain birds among *The Birds of Literature in the Children's Case*, one or two mottoes, with quotations, and perhaps some brief allusion to any habits of the bird which may have given occasion to the poet's expression. . . .

. . . If you should happen to recall any quaint quotation from an old author about the Barnacle Goose, or other like superstitions connected with birds, I should be very glad to get them. . . .

A knowledge of such tag ends of quotations and literary allusions was Fletcher's greatest strength, and it is not surprising that in preparing an

exhibit intended to tie up nature and literature, the Smithsonian would turn to Fletcher for aid. Unlike Bartlett and his *Familiar Quotations*, however, Fletcher never compiled and indexed his knowledge in this field, and beyond a few articles (the last of which appeared posthumously) Fletcher's stock of such information was lost at his death. It may be that the literary talents of his eldest son, Robert Howe Fletcher, who published a number of short stories and novels of the West, were fostered by his father's similar interests.

Teaching. From 1884 to 1888, Fletcher taught medical jurisprudence at the Columbian Medical College (now George Washington University), and for a number of years journeyed to Baltimore once a week to lecture to the medical students on the same topic. Although he had originally been intended for the law and had actually started his studies for that profession, this was British law, and of the 1830's and 1840's, to boot. Our lack of knowledge about when he picked up enough information about American medical law to be able to teach it at one of the leading medical schools is as baffling as our ignorance of the date when he first began his lectures. Much more is known about his attempt to resign his position there in 1904; from the interchange of letters about this, it would appear that by then the lectureship was of fairly long standing—if one can use this phrase about a school which had not even been in existence for twenty years.

In February 1904, at the age of eighty, Fletcher sent to Dr. W. H. Howell, Dean of the Faculty of Medicine at Johns Hopkins, his resignation as lecturer in forensic medicine. He apparently gave as his reasons his age and the feeling that he was taxing his eyes unduly by the continuous night work he felt to be necessary to keep his lectures up-to-date. Dr. Howell consulted with Dr. Hurd, the Superintendent of the Hospital, and other members of the Faculty, then, on February 25, wrote suggesting that Fletcher withdraw the resignation, "unless the reason is imperative." To this Fletcher replied on March 1, "I thank you for your courteous remarks in relation to my resignation as lecturer. Permit me to say to you, in all frankness, that my sole reason for sending it in was an impression on my part that *perhaps* it might be desired to confide the work to a younger man, and I desired to leave the Faculty at full freedom to exercise their judgment in the matter."

Dr. Hurd seconded Howell's entreaties. "We wish to keep you as long as you are willing to remain with us," he noted on March 10. "Your lectures are much appreciated by the medical students and I know of no one who would at all fill your place." A week later the Faculty met, and Hurd reported the results to Fletcher immediately:

Dear Dr. Fletcher: Please pardon my writing with the typewriter, but I am anxious to communicate with you as promptly as possible.

Your resignation was presented by Dr. Howell at the meeting of the Medical Faculty on Thursday afternoon last. There was, however, such a unanimous feeling of regret and a universal desire that you still continue your connection with the Medical School, I asked that final action be postponed until the next monthly meeting. Meantime I was asked to write to you to express the regret of the Faculty that you had come to this decision, and to ask if it would not be possible for you to still continue to hold the place without taxing your eyes by night work. In other words, the lectures which you are delivering are so satisfactory, the members of the Faculty feel that they do not need constant rewriting. If you feel able to endure the fatigue and exposure of the journey here, I am sure everyone will be fully satisfied with the lectures as they are.

Fletcher did not withstand these flattering pressures for long. Hurd's letter of March 19 was answered on the twenty-second with one agreeing to continue as lecturer, a position he retained for another five years.

Although Fletcher prepared his notes in the evening on his own time, the time of his journeying to and from Baltimore and the actual lectures were all part of a normal working day. This was true of Billings' and later Garrison's lectures, indicating how usual was such extralibrary employment.

Other interests. We know that Fletcher was connected with the Philosophical Society of Washington and with the Cosmos Club, of which he was President at one time, but little more than this is known of his connection with the two groups. It is likely that the number of scientists and philosophers in Washington in the decades between Grant's administration and the turn of the century was so small that almost all of them belonged to the same professional and social groups, in which the offices were passed around over a period of years among nearly all members. Such a view is bolstered by the fact that Billings held membership in most of the same local organizations as did Fletcher, and that both were elected to the same offices at different times. In such a situation, an organization would tend to rise or fall in importance and usefulness according to the characteristics of the particular individual heading it at a particular time. Even without documentary evidence, it seems reasonable to assume that the kitchens and wine cellars of the Cosmos Club grew and flourished during the years when Fletcher was President. Undoubtedly the spirits of Escoffier, Brillat-Savarin, and the Discoverer of Roast Pig rejoiced at the election of Fletcher to this office.

Honors. At least twice in his life Fletcher was honored by the medical profession of Baltimore and Washington by dinners tendered him as a tribute to his work in the Library and medical bibliography in general.

In one case Osler arranged the dinner and in the other he came from England to speak at it. In addition, a large group of people, both from the United States and overseas, subscribed to a loving cup and a portrait of Fletcher to be hung in Library Hall. He was the subject of an article in the *New York Tribune* for August 12, 1900, obviously written by an intimate. At Osler's instigation, the Royal College of Surgeons in 1910 presented Fletcher with its Honorary Gold Medal, and in 1912 the University

DINNER IN HONOR OF
DR. ROBERT FLETCHER
 JANUARY 11TH, 1906

Buffet Table
 MARTINI COCKTAILS
 MANHATTAN COCKTAILS
 SHERRY AND BITTERS

Menu
 +

DELICES AU CAVIAR
 CANAPES D' ANCHOIS

Cape Cod Oysters Marinières

Olives

Clear Green Turtle Soup

Salted Almonds

Blanched Shad Maitre d'Hotel

Potatoes Hollandaises

Curled Celery

Cucumbers

Broiled Mushrooms on Toast

Small Bourgeois a la Morte

Sorbet

Marquise au Kummel

Dindon Saubage stuffed with Chestnuts and Sausages

Smithfield Ham Glace

Spinach en Coquilles

Champagne Sauce

Pulled Bread

Glace

Pudding Diplome

Petites Fours

Bonbons

Brandied Cherries

Cafe Noir

HAUT SAUTERNES
 MOET & CHANDON IMP. BRUT
 ST. MARCEAUX.
 APOLLINARIS

CIGARS: PARTAGAS & PANATELAS

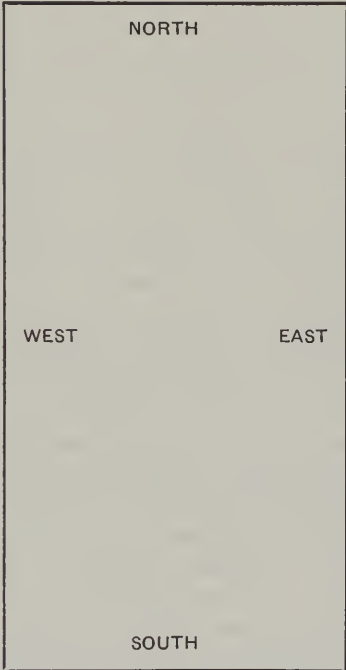
SCOTCH WHISKEY
 CLUB SODA
 LIQUEURS
 CIGARETTES

Chas. Kauscher

FIG. 3. a. Menu of Dinner Honoring Fletcher
 b. Seating Plan, Fletcher Testimonial Dinner
 Washington, D. C., January 11, 1906

ENTRANCE

Dr. Randolph B. Carmichael
 Dr. A. Barnes Hooe
 Dr. Chas. W. Richardson
 Dr. Jos. C. Bloodgood
 Dr. James F. Mitchell
 Dr. G. Wythe Cook
 Gen. Wallace Randolph
 Dr. H. W. Wiley
 Dr. G. M. Kober
 Dr. W. W. Keen
 Dr. J. T. M. Finney
 Dr. H. H. Donnelly
 Dr. Frank Baker
 Dr. J. H. Bryan
 Dr. Theo. Gull
 Dr. W. C. Woodward



Dr. Frank Howe
 Dr. Henry B. Deale
 Dr. C. F. Stokes
 Dr. Williams Donnally
 Dr. C. A. L. Reed
 Dr. D. K. Shute
 Dr. Geo. F. Becker
 Dr. S. B. Muncaster
 Dr. De Forest Willard
 Dr. A. Jacobi
 Dr. Chas. L. Heizmann
 Dr. W. S. Thayer
 Dr. Jas. T. Wilson
 Dr. W. M. Polk
 Dr. W. H. Welch
 Dr. A. F. A. King
 Dr. Henry M. Hurd
 Dr. Wm. Osler
 Dr. H. C. Yarrow
 Dr. Robert Fletcher
 Dr. R. M. O'Reilly
 Dr. W. K. Van Reyepen
 Dr. Thomas B. Futcher
 Prof. R. S. Woodward
 Admr. J. C. Walker
 Dr. Howard A. Kelly
 Dr. Jas. Tyson
 Dr. Walter Wyman
 Dr. Henry Barton Jacobs
 Dr. W. F. R. Phillips
 Dr. George Tully Vaughan
 Mr. Richard Rathbun
 Dr. J. Whittredge Williams

Dr. Z. T. Sowers
 Dr. E. M. Gallaudet
 Dr. Walter A. Wells
 Dr. T. V. Hammond
 Dr. James D. Morgan
 Dr. Walter D. McCaw
 Dr. S. O. Richey
 Dr. W. C. Borden
 Mr. Herbert Putnam
 Dr. Sterling Ruffin
 Dr. Lewellyn Barker
 Gen. Theo. Schwan
 Dr. G. M. Sternberg
 Dr. W. S. Halsted
 Dr. S. S. Adams
 Dr. J. C. Wise
 Gen. Joseph K. McCammon
 Dr. Arnold Hague
 Dr. F. Fremont Smith
 Dr. Cyrus Adler
 Gen. L. A. Matile
 Dr. Middleton Cuthbert
 Dr. Albert L. Stavelly
 Dr. C. R. Collins
 Dr. T. N. McLaughlin
 Dr. Geo. N. Acker
 Dr. F. R. Hagner
 Dr. Wm. Gerry Morgan
 Dr. Truman Abbe
 Dr. H. H. Kerr
 Dr. Philip Marvel
 Dr. J. O. Skinner

Dr. Fielding H. Garrison
 Dr. Dantl J. Healy
 Dr. Monte Griffith
 Hon. Martin A. Knapp
 Mr. Wm. A. De Candiery
 Dr. G. Lloyd Magruder
 Dr. Thomas A. Claytor
 Dr. J. S. Billings
 Dr. J. M. Flint
 Dr. Chas. K. Mills
 Lieut. Col. A. H. Russell
 Mr. Bernard R. Orcen
 Col. T. W. Symons
 Dr. J. M. Cabell
 Dr. Thos. M. Chaturd
 Dr. J. H. Musser

of Bristol gave him an honorary degree. In America numerous schools and societies declared him an honorary member. When Major McCaw became Librarian of the Surgeon General's Library in 1904, it was intimated to him that he should treat Fletcher well, and Osler noted that McCaw's "kindly interest and care of Dr. Fletcher have been much appreciated by all his old friends." By special Act of Congress in 1891, Fletcher was named Principal Assistant Librarian of the Surgeon General's Library. On his death, a spate of laudatory obituaries in medical journals all over the world bespoke the esteem in which he was universally held.

In 1904 at the age of eighty Fletcher, who had once claimed to have suffered so severely with spinal neuralgia that he had to give up the practice of medicine, was in such good physical condition that a weekly round trip on the steam cars between Baltimore and Washington did not deter him from continuing his series of lectures at the Medical School. Perhaps he took Osler's famous advice about a heart disease—to take good care of it and so outlive all his contemporaries. Or perhaps Fletcher's own motto about illness, "Treat it with contempt," helped him personally. Whatever the cause, Fletcher continued well and interested in the world about him for almost a decade thereafter. He came to the Library daily; he answered questions for a few chosen people; he classified material for the *Index-Catalogue* and *Index Medicus*; and he read proof in the miniscule type used therein—all apparently without difficulty. Major McCaw, Librarian after 1904, gave a cheerful picture of Fletcher's last years. "Time dwelt very gently with him," he noted. "Except for the feebleness of extreme old age, his health was excellent and his mind unimpaired."

Thus Fletcher continued until the spring of 1911, when he was the victim of a severe attack of diphtheria. In view of his advanced age (he was eighty-eight years old at that time) it is not surprising that he recovered very slowly. Even after he returned to the Library in the early fall, which he insisted upon doing against the advice of some of his friends, he was not completely well. He continued to read proofs at the Library desk up to within a few days of his death; finally his weakness precluded even this exertion. He went home to rest, where he died peacefully on November 6, 1912. A few days later he was buried with military honors in Arlington Cemetery beside the body of his wife and overlooking the Mall which led to his beloved Surgeon General's Library.

VI

Today we stand almost fifty years from the death of Robert Fletcher. With this perspective, can we determine what Fletcher really did or evaluate his contributions to society? His contemporaries seemed to have no doubt of his place in the world; yet to our generation he is a shadowy and forgotten figure, worthy only of a footnote or two. We are baffled

by the paucity of documentation about him and confused by the realization that a man apparently so useful to and so beloved by his peers should have so quickly become a kind of ethereal myth, with fact and story and conjecture all interwoven.

What his fellows thought of Robert Fletcher has been revealed in the pages which have gone before. It appears to me that Fletcher's greatest contributions to the world about him were directly related to his love for order and tidiness and good records. This is shown in his three greatest triumphs. The first was in his work as Medical Purveyor during the Civil War, where he took the broken system (or lack of system) of the Medical Department and made it so workable that the troops of Generals Grant, Sherman, and Thomas could be put into the field with assurance of adequate medical equipment wherever and whenever they needed it.

His second great success was in the field of medical bibliography. We have noted that Fletcher's Civil War accounts were kept so carefully that it was possible to audit them in a few days after the conflict. The same feeling for good records undoubtedly made Fletcher a careful, exact, painstaking, and accurate medical bibliographer—the ideal editor for the *Index-Catalogue* and the *Index Medicus*. It is fascinating to spin conjectures of what would have happened if Fletcher had not been there to bring to fruition the plans laid by Billings. Would Billings have concluded the system itself was unworkable and devised another one, or would he have been able to obtain another assistant who was Robert Fletcher in all but name? We do not know; all we are sure of is that Fletcher was essential to the success of the bibliographic endeavors of the Surgeon General's Library; had he not been there it would have been necessary to locate someone like him. Here also it was Fletcher's love of accurate records which led him to this, his greatest triumph.

The third great contribution which Fletcher made to the world was the help he gave to the users of the Library, and this was due fundamentally to his enormous memory, in which he apparently was able to keep thousands and thousands of facts neatly sorted and cataloged, to be produced when requested by inquirers. Although this was undoubtedly one of the traits which brought him the greatest fame, even awe, from his colleagues, to one of this generation it seems to have retarded rather than helped the Library, if one takes the long-term view. Many things can be kept in the memory of most intelligent people, and for these no formal set of catalogs or other mnemonic devices are necessary. Adding to the number of such bits of information, however, finally results in a situation where some external system must be set up to act as the memory for all the facts.⁴

⁴ This is no new problem, of course. The Preface to the first known concordance to an English Bible—the early fifteenth century Wycliffite New Testament—states in part,

Billings and Fletcher were able to see that in the field of medical bibliography the time for an outside system had already come; no one could any longer remember everything that was being published in the field. This was the impetus for founding the indexes they edited and published. But medical literature, although broken up into a large number of units, appeared physically in only a finite number of volumes on the Library's shelves. Apparently to these two men with prodigious memories, the time had not yet come which would demand an elaborate external system for locating the containers in which the literature was stored—the monographs and journals on their shelves. As a result, when these men left the Library, no one could carry on effectively. Had Billings' and Fletcher's internal systems of cataloging and classifying by memory not been so effective, they would probably have realized the need and devised a scheme for numbering, perhaps classifying numerically, the collection and for preparing a permanent card catalog of the books in the Library. This is borne out by the fact that Billings started such a system when he went to the New York Public Library. If this had been begun at the Surgeon General's Library when the dynamic spirit of Billings and Fletcher was still a moving force, the work could have been undertaken while the literature was still of manageable proportions, and the uneasy period of the Renaissance of the 1930's and 1940's in the Army Medical Library could probably have been avoided. Thus Fletcher's personal strength led to a grave weakness in the institution he served.

In the other fields in which Fletcher was interested, his importance is minor. His work in anthropology, literature, even medical jurisprudence, was such that probably many another person would have been equally useful and successful. Even in these fields, however, his contributions seem of the cataloging, record-keeping, tidying variety. They reveal Fletcher as a well rounded man with many facets to his interests, but with a single focus: accurate records.

The traits of accuracy, liking for complete records, order, service to questioners, and even courtesy are those of the ideal librarian. As Sir Humphrey Rolleston has defined him, "the ideal librarian is a saintly character with a keen interest not only in books but in their would-be readers, whose time he saves thereby helping them, rather than himself, into print and prominence." In this sense Robert Fletcher was one of the truly great librarians—those intermediaries between scholars and scholarship whose monuments are the writings of those they serve.

"Mannes mynde, yat is ofte robbid of ye tresour of Kunnyng bi ye enemye of science, yat is forgetyng, is greetly releevd bi tablis maad bi lettre aftir ye ordre of ye a.b.c. . . ."

APPENDIX I

CHRONOLOGICAL LIST OF WRITINGS OF ROBERT FLETCHER

- An outline of the history of anthropometry, or the attempts to ascertain the proportions of the human body. (In: Statistics, medical and anthropological, of the Provost-Marshall-General's Bureau. Washington, Government Printing Office, 1875, v. 1, p. lxii-lxxxvii)
- An owl's revenge. (Transl. by Dr. R. Fletcher from the Bull. Soc. méd. de la Suisse Rom.) [Severe injuries of eyes.] Am. Naturalist 13: 262-265, 1879.
- Paul Broca and the French school of anthropology; a lecture delivered in the National Museum, Washington, D.C. Saturday lectures, Washington, p. 113-142, 1882.
- On prehistoric trephining and cranial amulets. Contrib. N. Am. Ethnol. no. 5, 1882. Abstracted in: Tr. Anthropol. Soc. Wash., 1: 47-51, 1882.
- Tattooing among civilized people. (Read before the Anthropological Society of Washington, Dec. 19, 1882.) Tr. Anthropol. Soc. Wash. 2: 40-68, 1882-83.
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- . . . Souvenir. Complimentary Banquet and Presentation of Loving Cup to Dr. Robert Fletcher. By his friends, January 11, 1906. 1 v.
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Physicians to the Presidents, and Their Patients: A Biobibliography

BY CHARLES A. ROOS, *Reference Librarian*
National Library of Medicine

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THIS article is an attempt to provide precise literary documentation of the names and, in so far as possible, the role of the physicians who briefly or at length have attended Presidents of the United States. Consideration has been limited to physicians who attended the Presidents during their terms of office.

The bibliographies prefacing each section are comprehensive and include all signed medical articles relating to the President in question which have been located in the medical literature. Articles from the non-medical literature have occasionally been included, but only when written by a physician to the President or when otherwise particularly relevant.

Material on the health of the President while in office has been included mainly to indicate the President's need for the physician and has been held to a minimum. When, however, it is believed this material is here first appearing in a medical publication it has been introduced at more length.

Articles which appear in the numbered bibliographies are referred to

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GEORGE WASHINGTON (1732–1799)

1st President, 1789–1797

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- GW 3. BLANTON, W. B. Washington's physicians, diseases and death. In *Medicine in Virginia in the Eighteenth Century*. Richmond, Garrett & Massie, 1931. p. 297–312.

Dr. Brown's letter of January 2, 1800 to Dr. Craik belatedly conceding the virtues of Dr. Dick's suggestion for treatment of GW (p. 306–307).

- GW 4. BRICKELL, J. Observations on the medical treatment of General Washington in his illness; with introductory remarks by Ward Brinton. *Tr. Coll. Phys. Phila.* ser. 3, 25: 90–94, 1903.

- GW 5. BROWN, M. W. The famous controversy about Washington's last illness. *Med. J. and Rec.* 135: 39–41, 201–202, 1932. Reprinted: *Clin. Excerpts*, N. Y. 6(1): 7–13, 1932.

- GW 6. BROWN, M. W. Washington's strange interest in sickness and death. *Med. J. and Rec.* 135: 201–202, 1932.

- GW 7. CAMPBELL, D. A. A historic case of cynanche trachealis. *U. Michigan M. Bull.* 24: 121–128, 1958.

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- GW 8. CRAIK, J. AND DICK, E. C. [Account of the late illness and death of General Washington] *Medical Respository* 3: 311–312, 1800. Reprinted from *The Times* of Alexandria.

Craik signed as Attending Physician, Dick as Consulting. Dr.

Brown had returned to Port Tobacco, so he could not sign.
Reprinted: *Philadelphia Medical Museum* 4: cliv-clvi,
1807-08.

- GW 9. DICK, E. C. Facts and observations relative to the disease of cynanche trachealis, or croup. [In a letter to the editor, from Dr. Elisha C. Dick, of Alexandria, Virginia.] *Philadelphia Med. and Phys. J.* 3d supp., p. 242-255, May 1809.
The letter is dated Oct. 7, 1808. GW's case, p. 252-253. Dr. Dick castigates Drs. Craik and Brown for having rejected his suggestions for treatment of the dying President.
- GW 10. [DICK, E. C.] The last illness of Washington. [Correspondence] *Med. Rec.* 92: 1128, 1917.
J. A. Nydegger submits a letter of Dr. Dick dated January 10, 1800, addressed to Thomas Semmes, in which he censures Drs. Craik and Brown for not having accepted his suggestions for the treatment of GW and reveals that he drew up at the request of Craik the statement listed as item 8 of this bibliography. Nydegger is sometimes considered to be the author of this reference.
- GIW 11. FAGGART, H. L. A recently discovered second letter from George Washington to John Baker. *J. Am. Dent. Ass.* 59: 549-551, 1959.
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- GIW 17. LEWIS, F. O. Washington's last illness. *Ann. M. Hist.* n.s. 4: 245-248, 1932.
- GW 18. LLOYD, J. U. Who killed George Washington? *Eclect. M. J.* 83: [353]-356, [403]-408, 453-456, 1923.
- GIW 19. Our most distinguished athlete. [Editorial] *New York M. J.* 101: 581, 1915.
In praise of GW's "physical perfection."

- GW 20. PRYOR, W. J. The closed bite relation of the jaws of George Washington, with comments on his tooth troubles and general health. *J. Am. Dent. Ass.* 20: 567-579, 1933.

Analysis of GW portraits in terms of his dental problem. Illus.

- GW 21. REID, J. Observations on the medical treatment of General Washington's last illness. *London Med. and Phys. J.* 3: 473-475, 1800.

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- GW 22. RESNIKOFF, P. A note on Washington. *Internat. J. Psychoanal.*, Lond. 15: 301-302, 1934.

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- GW 23. STEPHENSON, G. T. George Washington, the physical man. *Delaware M. J.* 5: 151-156, 1933.

- GW 24. THORPE, B. L. John Greenwood; surgeon-dentist to His Excellency, George Washington. *Dent. Rev.* 16: 519-524, 1902. Also in KOCH, C. R. E., ed. *History of Dental Surgery*. Vol. 3. *Biographies of Pioneer American Dentists and Their Successors*, by B. L. Thorpe. Fort Wayne, Ind., 1910, p. 20-27.

For additional remarks on GW's dental problem and his portraits see the biographical sketch of C. W. Peale in Koch, vol. 3, p. 39-40; also remarks of Rembrandt Peale: *Dental News Letter* 6: 189, 1853.

- GW 25. TOBEY, J. A. Preventable diseases in the Washington family. *Hygeia*, Chic. 13: 118-121, 1935.

- GW 26. TURNER, V. R. The medical men in George Washington's life. *Ohio M. J.* 53: 62-64, 190-191, 1957.

- GW 27. Washington and the medical affairs of the Revolution. [Editorial] *Ann. M. Hist.* n.s. 4: 306-312, 1932.

- GW 28. Washington's death and the doctors. In Solis-Cohen, S. *Judaism and Science*. Philadelphia, 1940, p. 57-66.

- GW 29. WEINBERGER, B. W. *An Introduction to the History of Dentistry in America*. St. Louis, Mosby, 1948. vol. 2.

Especially: George Washington; his need for medical and dental care (p. 291-338); Houdon's life mask of Washington compared with his portraiture (p. 339-361); Letters relating to Washington and his dentist [a checklist] (Appendix B, p. 380-382); Relating to the disposition of the Washington Greenwood Letters and dentures (Appendix C, p. 383-386). Also George Washington and William and John Baker (p. 81ff); Gardette and George Washington (p. 150); Washington's in-

quiry regarding Le Mayeur (p. 169ff). The bibliography on p. 334-338 lists some references on Washington's dental problems not included in this listing.

- GW 30. WEINBERGER, B. W. Washington's missing dentures: solving the mystery. *J. Am. Dent. Ass.* 60: 542-546, 1960.
- GW 31. WELLS, W. A. The case of George Washington, Esq.: a clinical sketch. *Hygeia*, Chic. 12: 106-109, 176-178, 180, 1934.
- GW 32. WELLS, W. A. The final illness of Washington. *Hygeia*, Chic. 11: 132-135, 139, 1933.
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- GW 34. WELLS, W. A. Washington's predilection for doctors and doctoring. *Virginia M. Month.* 66: 65-68, 1939.
- GW 35. WILLIUS, F. A. AND KEYS, T. E. The medical history of George Washington (1732-1799). *Proc. Mayo Clin.* 17: 92-96, 107-112, 116-121, 180, 1942.

HEALTH OF PRESIDENT WASHINGTON

1789. Operation for carbuncle of the left¹ thigh, June 17, at New York. Complications kept Washington under his physicians' care until October 2.

1790. Pneumonia at New York² commencing May 10, with final recovery in early June or later. "On Monday last the President was taken with a peripneumony of threatening appearance. Yesterday (which was the 5th day) he was thought by the Physicians to be dying. However about 4 o'clock in the evening a copious sweat came on, his expectoration, which had been thin & icherous, began to assume a well digested form, his articulation became distinct, and in the course of two hours it was evident that he had gone through a favorable crisis. He continues mending today, and from total despair we are now in good hopes of him. Indeed he is thought quite safe." Thomas Jefferson to his daughter (Mrs. Randolph) from New York, May 16, 1790; *Thomas Jefferson Papers*, vol. 54 (9312)

¹ "That it was his left thigh is not set forth in any of the numerous references to his 'thigh', but the fact is established by his own remark [FITZPATRICK, J. C. *The Writings of George Washington*. vol. 30, p. 366] that he had to lie for six weeks entirely on his right side." FREEMAN, D. S. *George Washington*. New York, Scribners, 1957. vol. 6, p. 214 (footnote). Freeman suggests as an etiological factor the "rubbing of his (Washington's) scabbard," vol. 6, p. 215 (footnote). Cf. LANGSTAFF, J. B. *Doctor Bard of Hyde Park* (New York, 1942), p. 170, 174.

² GW 3 (p. 308), GW 35 (p. 111), Wold (p. 10), and others have incorrectly placed this illness in Philadelphia.

[Library of Congress]. "The President is well enough to resume business." Letter of May 28, 1790; *ibid.*, (9325).³

1791. "The President is indisposed with the same blind tumour, & in the same place, which he had the year before last in New York. As yet it does not suppurate or be discussed. He is obliged to lye constantly on his side, & has at times a little fever." Letter to Madison from Philadelphia, July 24, 1791, FORD, P. L., ed. *The Writings of Thomas Jefferson*. New York, Putnam, 1895, vol. 5, p. 356-357. "The President is much better. An incision has been made, & a kind suppuration is brought on." Letter to Madison from Philadelphia, July 27, 1791, *ibid.*, p. 359.⁴

1793. "The President is not well. Little lingering fevers have been hanging about him for a week or ten days and have affected his looks most remarkably." Jefferson to Madison, June 9, 1793, *ibid.*, vol. 6, p. 292-293.^{5,6}

1794. Treatment for cancer of the cheek, summer 1794.

1794. Injury to his back in attempting to control his stumbling horse at the Lower Falls of the Potomac, June 22, 1794.

PHYSICIANS TO PRESIDENT WASHINGTON

Samuel Bard (1742-1821); M.D., University of Edinburgh, 1765.

LANGSTAFF, J. B. *Doctor Bard of Hyde Park: the Famous Physician of Revolutionary Times: the Man Who Saved Washington's Life*. New York, Dutton, 1942.

GW's carbuncle, p. 166-175.

³ "From that time on Washington never fully regained his health"; Wold (p. 10). For some evidence to the contrary see the statement from Sparks' *Life of Washington*, quoted in GW 12 (p. 42). Also see GW's reference to his unimpaired health during his southern tour (Fitzpatrick, *Writings*, vol. 31, p. 18). Also Freeman, vol. 7, p. 235, 430-431, 460.

⁴ No medical writer seems to have been aware of this event. Decatur notes "a recurrence of the tumors from which he had suffered two years before" and says this illness forced GW to abandon an intended trip to Mount Vernon in August (DECATUR, STEPHEN, JR. *Private Affairs of George Washington; from the Records and Accounts of Tobias Lear, Esquire, His Secretary*. Boston, Riverside Press, 1933. p. 245). Freeman knows the sources, but does not reproduce them in his text (Freeman, vol. 6, p. 324). The operator, however, remains unknown.

⁵ Wold (p. 10) incorrectly refers this letter to the year 1790, as GW 35 (p. 111) seems also to do.

⁶ GW 35 (p. 111) and Wold (p. 10) have erroneously attributed to the President a fever August 19-24, 1793. The quotation from Washington's *Diaries* in support of this is actually the last entry for August 1798, the fever having occurred August 19-24 of that year (FITZPATRICK, J. C., ed. *The Diaries of George Washington, 1748-1799*. Boston, 1925. vol. 4, p. 382). For additional details see Fitzpatrick, *Writings*, vol. 35, p. 419, 420, 423, where, incidentally, the fever is said to have begun on the 18th with remission on the 24th or 25th. The loss of 20 pounds referred to in GW 35 (p. 111) and Wold (p. 10) is also to be attributed to the year 1798, not 1793 (SEARS, L. M. *George Washington*. New York, Crowell, 1932. p. 495). GW 12 (p. 41-42) has 1797.

M'VICKAR, J. A. *A Domestic Narrative of the Life of Samuel Bard*. New York, 1822.

Remarks on GW as a patient, p. 136–137.

John Bard (1716–1799).

John Bard. In THACHER, JAMES. *American Medical Biography*. Boston, 1828. vol. 1, p. 96–103.

Samuel Bard operated on Washington June 17, 1789 (six weeks after his first inauguration) for a carbuncle of the thigh, and Washington was under Dr. Bard's care until October 2.⁷ Dr. John Bard, father of Samuel Bard, was called in consultation at the request of Washington (M'Vickar, p. 137), and later assisted in the operation.⁸

M'Vickar remarks: "The result of his illness was an intimacy with his patient, which Dr. Bard [Samuel] justly felt proud of. It continued unbroken until the removal of the seat of government to Philadelphia. . . . From that period, I believe, they never met: General Washington's sudden death preventing a visit which Dr. Bard, upon his retirement from practice, was preparing to make him."⁹ (*Op. cit.*, p. 137.)

Physicians present at pneumonia episode, New York, May–June, 1790

Mrs. Jay to John Jay, New York, May 15, 1790: "The President is ill and has been so some days; the family think his illness serious. Dr. Jones has been sent for from Philadelphia and is here now to attend with Bard,¹⁰ Charlton and MacKnight."¹¹ (JOHNSTON, H. P., ed. *The Correspondence and Public Papers of John Jay* . . . New York, Putnam, 1891, vol. 3, p. 399.)

⁷ GW paid Samuel Bard for "attendance and medicine from June 15th to Oct 2d." This is the 109 days so frequently referred to. The bill is cited in Decatur, p. 68. Dr. John Bard was also paid a fee.

⁸ There is reference to additional physicians, but their names have not been located. "On Wednesday he was visited by several physicians . . ."; *Pennsylvania Packet*, June 19, 1789, cited in Langstaff, p. 172.

⁹ Langstaff (p. 204) writes of an "urgent request" from GW that Bard visit him in his last illness. The only reference cited in this connection is M'Vickar's statement above. But no mention of such a request is made by Lear or others present during the last illness of GW. M'Vickar's statement itself seemingly implies only a social visit; finally, no letter is to be found in the various collections of GW's writings.

¹⁰ Dr. Bard's presence during this episode is not noted by any of the medical writers (including Langstaff), or by any historian consulted, except Freeman.

¹¹ There has been some disagreement concerning who was in charge at this illness of the President. Decatur (p. 133), accounting for the reference to Dr. MacKnight in the Maclay reference, writes: "Dr. Charles MacKnight was evidently called in by Dr. Gardner [*i.e.*, John] Jones to assist," thus apparently assuming that Dr. Jones was in charge. This assumption is presumably based on the entry in Lear's accounts indicating payment "... to Dr. Jones for attendance, etc. during the President's illness, 75/18/4," and the apparent lack of a record of payment to anyone else. The "discovery" by Freeman of Mrs. Jay's reference to the presence of Bard and Charlton at the bedside of the Presi-

Senator Maclay records the following: "Called to see the President. Every eye full of tears. His life despaired of. Dr. MacKnight told me he would trifle neither with his own character nor the public expectation; his danger was imminent, and every reason to expect that the event of his disorder would be unfortunate." (*Journal of William Maclay*. New York, Appleton, 1890, p. 265.) [Entry for May 15, 1790.]

"... We have been very near losing the President. He was taken ill with a peripneumony and on the 5th day of it he was pronounced by two of the three physicians present to be in the set of death. A successful effort of nature, however, relieved him and us." Letter of Thomas Jefferson, New York, May 27, 1790. (*Thomas Jefferson Papers*, vol. 54 (9324).) [Library of Congress.]

John Jones (1729–June, 1791); M.D., University of Rheims, 1751; Surgeon, 10th Massachusetts Regiment, 1777–1781.

MEASE, JAMES. A short account of the life of Doctor John Jones. In his *The Surgical Works of the Late John Jones, M.D.* 3d ed. Philadelphia, 1795. p. 1–48.¹²

dent establishes that these physicians were present before Dr. Jones arrived, and presumably after he departed, thus disposing of Dr. Jones's claim to precedence. Freeman assumes that Dr. Bard was in charge: "Major Jackson assumed direction of the office [i.e., the President's] and made all arrangements for medical attendance. Besides Dr. Samuel Bard, he called in Dr. John Charlton and Dr. Charles MacKnight..." to which statement Freeman adds the footnote: "Doubtless these physicians were summoned at the request of Dr. Bard." (vol. 6, p. 259.) The word "doubtless" presumably indicates a lack of documentary evidence for the point. Maclay's reference to Dr. MacKnight causes Freeman to acknowledge Dr. MacKnight as "then in immediate charge." The most convincing piece of evidence indicating Bard's priority is, perhaps, Jackson's letter to Colonel Biddle which does show that Dr. Jones was summoned by or in consultation with Dr. Bard.

William Jackson to Col. Biddle. New York, Wednesday noon, May 2nd [i.e., 12], 1790.

Dear Sir,

The enclosed letter, from Doctor Bard to Doctor Jones, is transmitted to you with a view to insure *secrecy*, *certainty*, and *dispatch* in the delivery of it.

To relieve you from any extraordinary personal anxiety I am happy to inform you that the symptoms which attend the President's indisposition, are not threatening—but it has been thought the part of prudence to call upon Doctor Jones in anticipation of any unfavorable change that may arise....

(Selections from the Correspondence of Colonel Clement Biddle. *Pennsylvania Magazine of History and Biography* 43: 149, 1919. Also: Fitzpatrick, *Writings*, vol. 31, p. 41 (footnote).)

¹² Describing the events immediately preceding Dr. Jones's death, Mease writes: "On the evening of the 17th [of June 1791] he paid a visit to the President of the United States..." (*Op. cit.*, p. 34). Hume (*Op. cit.*, p. 29) repeats this and qualifies the visit in question as "professional." But the story must be forgone, for Washington left Philadelphia on his tour of the southern states March 21, 1791 (Fitzpatrick, *Diaries*, vol. 4, p.

HUME, E. E. Surgeon John Jones, U. S. Army; father of American surgery, and author of America's first medical book. *Bull. Hist. M.* 13: 10-32, 1943.

Mease provides information on the role of Dr. Jones: "In the summer of the year 1790; the President of the United States then at New York; after having been for some days indisposed; became so ill, that other assistance in addition to that of his attending physician became necessary. An express arrived for Dr. Jones.¹³ . . . Upon his arrival at New York, he found that the disease from being of an inflammatory nature, had terminated in an alarming state of debility, and violent spasmodic difficulty of breathing, which threatened the greatest danger. An unacquaintance with the particular circumstances of the case prevents me from asserting positively, to whose fortunate advice the happy recovery is to be attributed; but the fact is, that in a few hours after the first visit a manifest alteration for the better was perceived, and in a few days the President was out of danger. The importance of the service rendered¹⁴ was not forgotten. On the removal of the federal government to Philadelphia, the President chose him physician to his family; and he continued in that honorable station until the time of his death."¹⁵ (Mease, *op. cit.* p. 33-34:)

Charles MacKnight (1750-1791).

Dr. MacKnight was a noted Revolutionary War surgeon, and is frequently referred to in Washington's wartime letters in connection with military medical affairs.

John Charlton (d. 1806).

Dr. Charlton was a friend of the Bards. Elected to the Board of Trustees of the New York Hospital in 1791, and thus served contemporaneously with Samuel Bard. Trustee of Columbia College (1799-1806). Brief biographical sketch in SHRADY, J. *The College of Physicians and Surgeons, New York*. Chicago, Lewis [1904] vol. 1, p. 11.

149) and did not return to Philadelphia until July 6 (Freeman, vol. 6, p. 324). Washington explicitly states in his diary: "From Monday the 13th [of June 1791] until Monday the 27th [of June] I remained at home [at Mount Vernon]"; Fitzpatrick, *Diaries*, vol. 4, p. 199.

¹³ Dr. Jones was sent for on May 12 (Freeman, vol. 6, p. 260); he apparently arrived on the 15th, the day of the crisis.

¹⁴ Freeman, seemingly the only writer aware of Jefferson's description of the 'crisis', makes light of Dr. Jones's contribution: "Dr. Jones arrived promptly but could suggest nothing effective." (vol. 6, p. 269.)

¹⁵ An entry in Lear's account book for May 11, 1791, of payment to Dr. Bass (druggist) of "his account of medicines furnished by Dr. Jones's direction" (Decatur, p. 233) is the only documented reference to possible medical care or advice in Philadelphia.

Other physicians who attended President Washington

James Tate; Surgeon, 3rd Pennsylvania Regiment, 1777–1778.

"The Gentleman who will have the honor of delivering this letter to you; is Doctr. Tate, who is possessed of the valuable secret of curing cancerous complaints. A call to England for some purpose of that sort, or with a view to derive benefit from his discovery, affords me an occasion to inform you (at his request) that I have, myself, experienced the fruits of his skill, in this art; being cured by him of an irritable spot on my right cheek which had for years been encreasing in pricking and disagreeable sensations; and in June last assumed the decided character of a cancer; of which I was perfectly relieved by Doctr. Tate in about two months by an easy course,¹⁶ under the operation of which I felt no confinement, or other inconvenience at the time, nor any injury to my constitution since."¹⁷ (Washington to Thomas Pickney, Philadelphia, Feb. 25, 1795 (FITZPATRICK, *Writings*, vol. 34, p. 125).)

The earliest reference to Dr. Tate in the Washington correspondence reports that Dr. Tate had fled the city during the yellow fever epidemic of 1793 (FITZPATRICK, *Writings*, vol. 33, p. 173), and still another letter of 1797 implies, perhaps, that Dr. Tate was dead at the time (*ibid.*, vol. 35, p. 513). But additional information was not found.¹⁸

Adam Kuhn (1741–1817); M.D., University of Edinburgh, 1767.

"Washington Custes had measles and was treated by Dr. Kuhn. The Washington family had had Dr. John Jones in cases of illnesses, until his death in June 1791. Dr. Kuhn was now generally considered the leading physician in the city." (Decatur, p. 255.) Rush writes of Kuhn: "The patronage of the principle officers of the general government [during its residence in Philadelphia] was given to Dr. Jones and afterwards to Dr. Kuhn." (CORNER, G. W., ed. *The Autobiography of Benjamin Rush*. Princeton University Press, 1948, p. 95.) Evidence that Dr. Kuhn treated the President, however, is wanting.

¹⁶ This suggests a nonsurgical procedure. Cf. the references to surgical intervention in GW 7, GW 13, GW 15.

¹⁷ GW retained his favorable opinion of Dr. Tate's cancer treatment, for on July 31, 1797, he inquired of Dr. Tate's nephew "...whether his applications for cancerous complaints are attended [with the success his uncle's were]..." (Fitzpatrick, *Writings*, vol. 35, p. 513.)

¹⁸ He is not referred to, for example, in POWELL, J. H. *Bring Out Your Dead; the Great Plague of Yellow Fever in Philadelphia, 1793*. Philadelphia, University of Pennsylvania Press, 1949. A "James Tate, physician" is listed in the *Philadelphia Directory and Register* for 1794 (address 138, High St.), but he is not listed in the 1791, 1793, or 1796 editions.

William Shippen, Jr. (1736–1808); M.D., University of Edinburgh, 1761.

Shippen was Director General of Military Hospitals of the Continental Army, 1777–1781.

“The doctor attended the General’s family while Congress sat in Philadelphia.”¹⁹ BUTTERFIELD, L. H., ed. *Letters of Benjamin Rush*. Vol. 2; 1793–1813. Princeton University Press, 1951, p. 1125 [footnote]. (This would have been in 1794 or 1795.)

James Craik (1730–1814).

Craik studied medicine at the University of Edinburgh; he was Washington’s personal physician in Virginia and attending physician at Washington’s death.

There is no record of Craik having attended Washington during any of his illnesses while President. Craik wrote to the President August 24, 1789, from Alexandria, regarding the carbuncle incident: “. . . I have constantly felt unhappy at being such a distance as not to have in my power to contribute my mite towards the restoration of your health. Although the abscess on your thigh has proved a painful and tedious termination of your complaint, I flatter myself it will leave you in possession of a large stock of future good health. Much I think will depend upon your determination at all events to take exercise.” (Langstaff, p. 174–175.) The near daily references in Washington’s *Diaries* for 1789 and 1790 to exercise on horseback or in the post chaise perhaps reflects Dr. Craik’s advice. In view of Washington’s frequent trips to Mt. Vernon while President it is likely that Craik had a more direct hand in Washington’s health problems, even during this period. The injury at Potomac Falls would, of course, be a special case in point.

JOHN ADAMS (1735–1826)

2nd President, 1797–1801

HEALTH OF PRESIDENT JOHN ADAMS

President Adams suffered frequently from colds during his term as President. On March 13, 1797, a few days after his inauguration in Philadelphia, he wrote of “a great cold” (ADAMS, C. F., ed. *Letters of John Adams Addressed to his Wife*. Boston, 1841, vol. 2, p. 250) and on November 28 of the same year Mrs. Adams wrote: “The President took a bad cold . . . and was confined ten days after we came here, but good nursing got the

¹⁹ This relationship is not referred to in CORNER, B. C. *William Shippen, Jr. Pioneer in American Medical Education*. Philadelphia, American Philosophical Society, 1951.

better of it." (MITCHELL, STEWART, ed. *New Letters of Abigail Adams*, 1788-1801. Boston, Houghton, 1947, p. 113-114.)

President Adams himself describes what appears to have been his most serious illness while President: "I lodged at Hartford [October 9, 1799], not yet purified of the yellow fever, and there I caught something very like it, or at least almost as bad, a most violent cold, attended with a constant fever, which rendered me for six weeks more fit for a chamber and bed of sickness than for uncomfortable journeys, or much labor of the head or hand." (ADAMS, C. F., ed. *The Works of John Adams*. Boston, 1854, vol. 9, p. 252-253.) Mrs. Adams has left notice of the illness: "I found a letter from the President, who writes, that he was oppressed with one of his old heavy colds. . . ." Letter of October 20, 1799. (*New Letters*, p. 210.) On October 25 the President wrote to Mrs. Adams: "I am pretty well recovered by my cold, but it has reduced my flesh." (*Letters of John Adams, Addressed to his Wife*, vol. 2, p. 263.)

Mrs. Adams frequently speaks of the strain of office on the President. Conversely, she wrote in a letter dated November 21, 1800, from Washington: "I have the pleasure to say we are all at present well, tho the newspapers very kindly gave the President the ague and fever.²⁰ I am rejoiced that it was only in the paper that he had it." (*New Letters*, p. 259.) The Adamses moved into the White House in November, 1800. Perhaps the first instance of a physician calling there in professional capacity is referred to in a letter of Abigail Adams dated Washington, Dec. 1, 1800. The occasion was a sudden night illness of Susan Adams, and Mrs. Adams writes: "We sent for the nearest physician, who gave her calomil. . . ."²¹ (*New Letters*, p. 260.)

PHYSICIAN TO PRESIDENT JOHN ADAMS

Benjamin Rush (1745-1813); M.D., University of Edinburgh, 1768.

"... our ancient friend, our physician . . ."²² [Mrs. Adams, upon hearing of Rush's death.] GOODMAN, NATHAN. *Benjamin Rush*. Philadelphia, University of Pennsylvania Press, 1934, p. 349.

²⁰ "The illness of my father and the result of the elections I was informed of at the same time by the English and German newspapers. . . . Mr. Murray . . . has informed me very lately that he had seen in a New York paper a paragraph stating my father having recovered from his fever. . . ." Letter to his mother, Berlin, March 10, 1801. (FORD, W. C., ed. *The Writings of John Quincy Adams*. New York, Macmillan, 1913, vol. 2, p. 511.)

²¹ The nearest physician was possibly Dr. William Thornton who lived at what was, in 1925, 1331 F Street, N.W. However, the event is not mentioned in Mrs. Thornton's *Diary* for 1800.

²² Personal attendance upon the President himself has not, however, been documented.

THOMAS JEFFERSON (1743–July 4, 1826)

3rd President, 1801–1809

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Jefferson's letters to Waterhouse reproduced. Relation to Dr. Coxe, Dr. Gantt (Chaplain to the Senate), and other early experimenters.
- TJ 5. RADBILL, S. X. Dr. Robley Dunglison and Jefferson. *Trans. & Studies Coll. Physicians, Philadelphia*, ser. 4, 27: 40–44, 1959.
- TJ 6. Thomas Jefferson. In BLANTON, W. B. *Medicine in Virginia in the Eighteenth Century*. Richmond, 1931, p. 187–200.
Includes Jefferson's interest in and contributions to science as well as information regarding the President's health.

PHYSICIAN TO PRESIDENT JEFFERSON

Benjamin Rush (1745–1813).

In a letter to Benjamin Rush dated December 20, 1801, Jefferson wrote: "My health has always been so uniformly firm, that I have for some years dreaded nothing so much as living too long. I think, however, that a flaw has appeared which ensures me against that. . . ." (FORD, D. L., ed. *The Writings of Thomas Jefferson*. New York, 1897. vol. 8, p. 128.) The "flaw" turned out to be a recurrent diarrhea, which Jefferson describes in detail in a letter to Rush of February 28, 1803, in which the President asks for "any ideas which you can without trouble throw on paper, for my government in the event of a return of the complaints to a troublesome degree. . . ." (*Ibid.*, p. 219–221.) Rush prescribed a course of treatment in letters dated March 12 and May 5, 1803, respectively. (BUTTERFIELD, L. H., ed. *Letters of Benjamin Rush*. Princeton University Press, 1951. vol. 2, p. 856–860, 863–865.) A note by Butterfield to the March 12 letter reads: "It is noteworthy that thirteen years later, in returning BR's letter at the re-

quest of Richard Rush, Jefferson retained this letter and that of 5 May 1803 'because a return of the complaint might happen and again render them useful'." (*Op. cit.*, vol. 2, p. 859-860.)

"It would be a great treat to receive you [Rush] here. But nothing but sickness could effect that; so I do not wish it." Jefferson to Rush, Monticello, September 23, 1800. (*Ford, op. cit.*, vol. 8, p. 461.)

JAMES MADISON (1751-1836)

4th President, 1809-1817

HEALTH OF PRESIDENT MADISON

"The President sick since last Monday" (*Mrs. W. B. Thornton's Diary*. [Library of Congress] Entry for Wednesday, June 16, 1813.)

"The President is indisposed, with a bilious attack, apparently slight." Monroe to Jefferson, Washington, June 16, 1813. (HAMILTON, S. M., ed. *The Writings of James Madison*. New York, Putnam, 1901, vol. 5, p. 271.)

"From the date of my last letter to you the President has been ill of a bilious fever; of the kind called remittent. It has perhaps never left him, even for an hour, and occasionally symptoms [sic] have been unfavorable. This is I think the 15th day." Monroe to Jefferson, Washington, June 28, 1813. (*Ibid.*, p. 271.)

Mrs. Madison describes her role in this illness in a letter of July 2, 1813: "I have the happiness to assure you, my dear cousin [Mr. Edward Coles] that Mr. Madison recovers; for the last three weeks his fever has been so slight as to permit him to take bark every hour and with good effect. It is three weeks now I have nursed him, night and day,—sometimes with despair! but now I see he will get well I feel as if I might die myself from fatigue. . . ." (*Memoirs and Letters of Dolly Madison* . . . edited by her Grand-Niece [Lucia B. Cutts]. Boston, Mifflin [1886], p. 93.)

But the son of the Vice President reports Madison "very ill" on the evening of the 2nd (*The Diary of Elbridge Gerry, Jr.* New York, Brentano's, 1927, p. 154) and Mrs. Thornton's *Diary* for the 5th of July records: "No visiting at the President's as he was sick," and for the 6th: "He [Madison] has a return of the fever."

In a letter of August 2, 1813, written from Washington, the President describes his illness: "I have just recovered strength eno', after a severe & tedious attack of bilious fever, to bear a journey to the Mountains whither I am about setting out. The physicians prescribe it as essential to my thorough recovery & security against a relapse at the present season." (HUNT, GAILLARD, ed. *The Writings of James Madison*. New York, Putnam, 1908. vol. 8, p. 255-256.)

An approximate terminal date for this illness is given in a letter of

August 28, 1813, written from Montpelier: "My own health has greatly improved since my arrival here; but I have not been without several slight returns of fever which are chargeable rather on the remnant of the influenza than the cause from which I suffered in Washington. I am now pretty well recovered from the last return which took place a few days ago." (*Ibid.*, p. 261.)

PHYSICIANS TO PRESIDENT MADISON

"Elzey of this place, & Shoaff of Annapolis, with Dr. Tucker attend him. They think he will recover. The first mention'd I have just seen, who reports that he had a good night, & is in a state to take the bark, which indeed he has done on his best days for nearly a week." Monroe to Jefferson, Washington, June 28, 1813. (HAMILTON, S. M., ed. *The Writings of James Madison*. New York, Putnam, 1901. vol. 5, p. 271.)

Arnold Elzey (1756-1818).

Garrison Surgeon's Mate, U. S. Army, 1814-1816. Post Surgeon, Washington, D. C., 1816-1818. Called "Physician to President Madison" by Toner in his unpublished *American Medical Biography* [Library of Congress, Manuscript Division] and in the *History of the Medical Society of the District of Columbia, 1817-1909*. Washington, 1909, p. 219. *The Medical Annals of Maryland, 1799-1899*, by E. F. Cordell (Baltimore, 1903), which has a few lines on Elzey, gives 1758 as his birth date. Elzey is frequently mentioned in Mrs. Thornton's *Diary*.

John Thomas Shaaf (1763²³-1819).

Practiced at Annapolis for several years, then moved to the District of Columbia.

Thomas Tudor Tucker (1745-1828).

Born in Bermuda. Studied medicine at the University of Edinburgh. Moved to South Carolina. Revolutionary War Surgeon. U. S. Treasurer, 1801-1828.

JAMES MONROE (1758-1831)

5th President, 1817-1825

HEALTH OF PRESIDENT MONROE

"I had an attack in the winter of the influenza, which, by the confinement inseparable from the pressure of business, became complicated with bile & by the depleting remedies, reduced me considerably. I am now in

²³ According to *The History of the Medical Society of the District of Columbia*, [vol. 1] p. 218; CORDELL, E. F. *The Medical Annals of Maryland*, p. 564, has 1752.

much better health but thin." Monroe to Madison, Washington, April 28, 1818. (HAMILTON, S. M., ed. *The Writings of James Monroe*. New York, Putnam, 1902. vol. 6, p. 51.)

"... until the last winter, my health had not been fully restored since the fatigues of the last war." Monroe to Gallatin, Washington, May 26, 1820. (*Ibid.*, p. 130.)

"The President was suddenly seized this morning with cramps or convulsions, of such extreme violence that he was at one time believed to be dying, and he lay upward of two hours in a state of insensibility. I did not hear of it till the fit was over. I called at his house and saw there Dr. Washington and Mr. Hay. The Doctor said the President was disposed to sleep, and it would be best that no person should see him. Mr. Hay said that Dr. Sim had pronounced the danger to be past and did not apprehend a renewal of the attack. But, Hay added, he thought it would be some time before it would be prudent to lay before him business of any kind. Before returning home for dinner, I sent to enquire how he was, and the answer to the messenger was, much better." (ADAMS, C. F., ed. *Memoirs of John Quincy Adams*. Philadelphia, Lippincott, 1875. vol. 6, entry for August 2, 1823.) Entries for August 8 and 9 indicate the President was convalescent. On August 12 the future President notes: "I called at the President's and found him much recovered." (*Ibid.*, p. 172.)

PHYSICIANS TO PRESIDENT MONROE

Bailey Washington (1787-1854); M.D., University of Pennsylvania, 1810.

Naval Surgeon, 1810-1854. Dr. Washington²⁴ was the son of Lawrence Washington, George Washington's half-brother.

Thomas Sim (1770-1832); M.D., University of Pennsylvania, 1823.

Washington, D. C., physician from about 1810 until his death.

Charles Everett²⁵ (d. 1848).

"He was Monroe's intimate friend, physician, and at one time private secretary." *Tyler's Quarterly* 4: 96, 1922.

²⁴ Writing to Dr. Charles Everett, November 13, 1823, concerning an illness of Mrs. Monroe, the President says "Dr. Huntt... has attended her in the absence of Dr. Washington." (*Tyler's Quarterly*, 5: 21, quoted in BLANTON, W. B. *Medicine in Virginia in the Nineteenth Century*. Richmond, 1933. p. 134.) This would seem to give precedence to Dr. Washington as family physician when the President was in Washington.

²⁵ S. M. Hamilton writes "Doctor Everett was Monroe's secretary during his Presidency and afterwards his family physician." (*Op. cit.*, vol. 5, p. 103 (footnote).) A reading of Monroe's correspondence with Everett, published in *Tyler's Quarterly* 5: 18, 1923, makes certain that he was called on to treat Mrs. Monroe in 1820 and establishes the presumption that he was Monroe's personal physician at least during Monroe's sojourns in Albemarle County while President. For a reference to possible attendance of Dr. Everett on Madison during his illness of 1813 see *Tyler's Quarterly* 4: 406, 1923.

JOHN QUINCY ADAMS (1767-1848)

6th President, 1825-1829

HEALTH OF PRESIDENT JOHN QUINCY ADAMS

In his *Memoirs*, President Adams complains of his health and spirits for the last several months and then writes: "With a defective perspiration and an imperfect digestion, there has been continual heat, part of which has come out from time to time on the surface of the skin, as it did last summer, though not quite in so high degree. Dr. Huntt pronounces this to be erysipelas, and has repeatedly and earnestly advised me to go pass the summer at the North . . . and vegetate myself into a healthier condition." (Vol. 7, p. 311-312; entry for August 31, 1827.)

PHYSICIAN TO PRESIDENT JOHN QUINCY ADAMS

Henry Huntt (1782-1838); M.D. (Honorary), University of Maryland, 1824.

Asst. Surgeon, U. S. Navy, 1811-1813; Surgeon, U. S. Army, 1814-1815.

"[Dr. Huntt was] the medical attendant of most of the leading personages of the day [in Washington] including five successive Presidents of the United States."²⁶ (PILCHER, J. E. *The Surgeon Generals of the Army of the United States*. Carlisle, Pa., Association of Military Surgeons, 1905, p. 34.)

MILLER, T. A biographical sketch of the professional life and character of the late Henry Huntt, M.D., of Washington City, D. C. *Med. Examiner* 1: 363-365, 1838.

The sketch does not refer to Dr. Huntt's services to the Presidents.²⁶

ANDREW JACKSON (1767-1845)

7th President, 1829-1837

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General medical history.

HEALTH OF PRESIDENT JACKSON

Operation for hydrocele, fall or winter 1831.

Influenza, January 1832 (?).

Removal of bullet from arm, January 1832.

Chronic pulmonary condition, with hemorrhages: Massachusetts, June 24-25, 1833; Washington, D. C. November 1836.

²⁶ Monroe's letter to Everett first documents the entry of Dr. Huntt into the White House; see footnote 24.

PHYSICIANS TO PRESIDENT JACKSON

Thomas Sim (1770–1832).

In Jackson's Senate days, Mrs. Jackson, according to Mr. Trist, attempted to have the President change to another physician on the occasion of a serious inflammation of his arm. "The case was in the hands of Dr. Sims [*i.e.*, Sim]," Mr. Trist relates, "an old friend who was always the family doctor when Jackson was at Washington." To Mrs. Jackson's entreaty the President replied: "Dr. Sims is my friend—an old and valued friend. His professional reputation, his standing as a physician, his feeling as a man, are all at stake in the matter . . . the thing is impossible; it can not be done. He shall cure me, or he shall kill me." (PARTON, JAMES. *The Life of Andrew Jackson*. vol. 3, p. 608.) In all likelihood Dr. Sim remained as Jackson's physician until late into the President's first term.

Thomas Harris (1784–1861).

Chief, Bureau of Medicine and Surgery, U. S. Navy, 1844–1853.

" . . . Dr. Harris had risen to eminence as a surgeon as well as a teacher and had come to be known as one of the leading men in Philadelphia. His reputation as a surgeon is shown by the fact that when President Jackson desired to have a bullet extracted that he had received in a duel with Charles Dickson in 1806, it was Harris, together with Dr. Triplett, who operated on the President. This was in 1832 [January 12], 26 years after the wound had been received." (RODDIS, L. H. Thomas Harris, M.D., naval surgeon and founder of the first school of naval medicine in the new world. *J. Hist. M.* 5: 236–250, 1950.)

Triplett (not further identified).

Henry Huntt (1782–1838).

"Jackson MSS, vol. 117, p. 133 . . . Jackson's family physician in Washington was Dr. H. Hunt [*i.e.*, Huntt] to whom he paid in January 1837, the sum of \$175 for medical services during 1836." (BASSET, J. S., ed. *Correspondence of Andrew Jackson*. Carnegie Institute of Washington, 1931. vol. 5, p. 342 (footnote).)

In a letter of November 27, 1836, written from Washington, the President tells of being confined to bed by a severe hemorrhage from the lungs "which threatened a speedy end to my existence. . . . The Doctor [Huntt] tells me I lost from the lungs and by the lancet and cupping, upwards of 60 ounces of blood, which stopped the hemorrhage, without the aid of that potent, but pernicious remedy to the stomach, sugar of lead. I am now mending as fast as I could expect." (Basset, vol. 5, p. 439.)

"The unexpected demise of Surgeon General Lovell threw the ad-

ministration quite at sea with regard to his successor. The natural course would have been to promote Surgeon Thomas Lawson who was the senior officer of the medical corps, but President Jackson wished Dr. Henry Huntt who had been a Hospital Surgeon in the War of 1812, to accept the position. Dr. Huntt was a native of Maryland, who, after a brief period of Naval service, accepted a commission as hospital surgeon in the Army, and succeeded Dr. Lovell at the Burlington General Hospital. At the close of the war he resigned his commission and engaged in private practice in Washington. Here his efforts were crowned with phenomenal success and he became the leader of the profession and the medical attendant of most of the leading personages of the day including five successive Presidents of the United States. President Jackson after repeated verbal requests that Dr. Huntt assume the surgeon-generalcy, finally wrote him a personal letter formally tendering him the office. This letter was for many years one of the most cherished treasures of the family. Dr. Huntt did not feel justified, however, in accepting the offer and declined the honor, urging that his old friend and comrade, Surgeon Lawson, be appointed in his stead, a request with which the President on November 30, 1836, ultimately complied." (PILCHER, J. E. *The Surgeon Generals of the Army of the United States*. Carlisle, Pa., Association of Military Surgeons, 1905, p. 34.)

James C. Hall (1805–1880); M.D., University of Pennsylvania, 1827.

TONER, J. M. James Crowdhill Hall. *Trans. Am. M. Ass.* 32: 506–513, 1881.

"Dr. Hall attended professionally every president from Adams²⁷ to Lincoln. . . ." p. 509.

"In the Jackson MSS is a receipted bill from Dr. J. C. Hall, dated Jan. 1, 1832, and reading as follows: 'To operating for Hydrocele and subsequent attendance, \$30.'" (Basset, *op. cit.*, vol. 5, p. 342 (footnote).)

"He [Hall] had been the family physician of every President of the United States, beginning with Jackson and ending with the death of Lincoln's son." (BUSEY, S. C. *Personal Reminiscences and Recollections of Forty-Six Years' Membership in the Medical Society of the District of Columbia*. Washington, 1895, p. 148–149.)

Philip Syng Physick (1768–1837); M.D., University of Edinburgh, 1792.

"At Philadelphia [June 1833], the President was induced, after much persuasion, to consult the celebrated Dr. Physick, with regard to that pain in the side and the bleeding at the lungs to which he was subject. Upon

²⁷ [CREW, H. W., ed.] *Centennial History of the City of Washington, D. C.*, (Dayton, Ohio, 1892) p. 602, has "John Quincy Adams."

meeting the Doctor, the President explained his symptoms, concluding with these words: 'Now Doctor, I can do any thing you think proper to order, and bear as much as most men. There are only two things I can't give up; one is coffee, and the other is tobacco.' . . . Mr. Trist from whom I received this anecdote, added that Dr. Physick was completely captivated by the General's manner." (PARTON, J. *Life of Andrew Jackson*. Boston, Houghton, 1888. vol. 3, p. 489.)

Letter to Andrew Jackson, Jr., Philadelphia, June 10, 1833: "I have seen Doctor Phisic, who encourages me, and says my heart is not effected in any way, and the pain in my side can be removed by cupping." (Basset, *op. cit.*, vol. 5, p. 109.)

John C. Warren (1778–1856); M.D., Harvard, 1797.

3rd President, American Medical Association, (1849/50).

"He [Jackson] was sick in bed the whole day, under the care of Dr. Warren. This day . . . he is convalescent." (*Memoirs of John Quincy Adams*, vol. 9, p. 4, entry for June 25, 1833.)

"I believe much of his debility is politic . . . he is now alternately giving out his chronic diarrhea and making Warren bleed him for pleurisy, and posting to Cambridge for a Doctorate of Laws. . . ." (*Ibid.*, p. 5; entry for June 27, 1833.)

"In June, 1836, he [Warren] went to Washington with a part of his family, and they were for a time the guests of President Jackson. . . . During General Jackson's visit to Boston in 1834 [*i.e.*, 1833] they had several interviews; and when the former was taken ill, the doctor gave a further proof of his attachment by attending him with care and bleeding him twice." (ARNOLD, H. P. *Memoir of Jonathan Mason Warren, M.D.* Boston, 1886, p. 123 (footnote).)

MARTIN VAN BUREN (1782–1862)

8th President, 1837–1841

No information on physicians or health located.

WILLIAM HENRY HARRISON (1773–1841)

9th President, 1841 (March 4–April 4)

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- WHH 2. MILLER, THOMAS. The case of the late William H. Harrison, President of the United States. *Medical Examiner*, Phila., 4: 309-312, 1841. Reprinted: *Boston M. & S. J.* 24: 261-267, 1841.
- WHH 3. Murder of the President of the United States (from the *Boston True Thompsonian*). *Botanico-Medical Recorder*, Columbus, 9: 286, 1841.
- "Mr. Tyler stands to meet with the same fate. Already seriously indisposed . . . as certainly as he employs the faculty, his days are numbered."
- WHH 4. President Harrison's last illness. *Boston M. & S. J.* 25: 25-32, 1841.
- Criticism of the attending physicians' handling of the case as reported in WHH 2.
- WHH 5. Report of the treatment of the late President Harrison. *Boston M. & S. J.* 25: 36, 1841.
- Notes the rumor "that the prescriptions in the medical report [WHH 2] were constructed cautiously, under the vigilant supervision of a scholar, sometime after the death of the illustrious patient." The rumor was denounced by the editor of the *Medical Examiner* (4: 619-620, 1841), and the denunciation was accepted by the editor of the *Boston Medical and Surgical Journal* in an editorial, "Anonymous Criticism on Medical Practice," *Boston M. & S. J.* 25: 147, 1841.

HEALTH OF PRESIDENT HARRISON

President Harrison was the first United States President to die in office. He was inaugurated March 4, 1841, became ill on the 27th of March, and died of pneumonia April 4.

PHYSICIANS TO PRESIDENT HARRISON

The last paragraph of Dr. Miller's account of the case [WHH 2] reads: "The deep political and personal interest dependent on the life of the President, imposed on his attending physician a fearful responsibility, of which he felt himself painfully mindful. He speedily sought a consultation and was scarcely ever absent from the house more than one hour together. Dr. James Crowdhill Hall remained with him during the last three nights. Dr. Alexander and Dr. Worthington were in attendance with Dr. Hall and the attending physician the night of his death; Dr. May being absent from indisposition."

Thomas Miller (1808-1873); M.D., University of Pennsylvania, 1829.

MILLER, V. Dr. Thomas Miller and his times. *Records, Columbia Historical Society, Washington, D. C.*, vol. 3, p. 303-323.

"Harrison's successor, Mr. Tyler, had Dr. John Thomas for his physician, but my father was the physician called in when needed by all the other occupants of the White House until Mr. Lincoln became President, when Dr. Robert King Stone was called" (p. 312).

Ashton Alexander (1772–1855); M.D., University of Pennsylvania, 1795.
Baltimore physician.

James C. Hall (1805–1880)

Frederick May (1773–1847); M.D., Harvard, 1811.

MILLER, T. The late Dr. Frederick May, of Washington. *Boston M. & S. J.* 36: 249–252, 1847.

Dr. May's service to the President is not referred to.

Nicholas William Worthington (1789–1849); M.D., University of Pennsylvania, 1815.

Washington physician.

JOHN TYLER (1790–1862)

10th President, 1841–1845

HEALTH OF PRESIDENT TYLER

"Mr. Tyler had suffered severely from dyspepsia ever since the shock he had experienced the preceding winter [1819]. . . . Indeed, the effects of the attack lingered in his frame until his death.²⁸ The cause of it was ascribed by Mr. Tyler to his eating some stale fish, imposed by the keeper of his boarding house upon his unsuspecting guests." TYLER, L. G. *The Letters and Times of the Tylers*. Richmond, 1884, vol. 1, p. 334–335.

The only other reference to an illness of Mr. Tyler while President is cited as a note to WHH 3.

PHYSICIAN TO PRESIDENT TYLER

John Moylan Thomas (1805–1853); M.D., University of Maryland, 1826.

"Mr. Tyler had Dr. John Thomas for his physician. . . ." (Miller, V., *op. cit.*, p. 312.)

JAMES POLK (1795–1849)

11th President, 1845–1849

HEALTH OF PRESIDENT POLK

Polk's *Diary* reveals that apart from a day now and then of indisposition he was well until late September 1847, when he sustained an attack of

²⁸ Wold (p. 67) suggests the recurrent attacks were amebic dysentery or typhoid fever.

chills and fever which lasted a month. The President suffered from another attack of chills and fever in June and July 1848. The illness may be presumed to have been malaria.²⁹

PHYSICIANS TO PRESIDENT POLK

James Crowdhill Hall (1805–1880).

"My family physician (Dr. Thomas Miller) I learned was absent from the city, and I sent for Dr. Hall, who is one of the most eminent physicians of the city." (POLK, JAMES. *Diary*. vol. 3, p. 9–10; entry for May 4, 1847.) The occasion was an illness of Mrs. Polk.

When the President first called upon a physician for himself, in September 1847, he called in Dr. Hall, requesting him to invite Dr. Miller in the evening. During the remainder of this illness and during the illness of 1848 only Dr. Hall is mentioned.

Thomas Miller (1808–1873).

Jonathan Messersmith Foltz (1810–1877); M.D., Jefferson Medical College, 1830.

Assistant Surgeon, U. S. Navy, 1831; Surgeon General, U. S. Navy, 1871–1872.

FOLTZ, C. S. *Surgeon of the Seas; the Adventurous Life of Surgeon General Jonathan M. Foltz in the Days of Wooden Ships*. Indianapolis, Bobbs-Merrill, 1931. 351 p.

KIDDER, J. H. Foltz, Jonathan Messersmith. *Trans. Am. M. Ass.* 33: 555–558, 1882.

"During this period of service [1848] in Washington . . . President Polk, whose health was beginning to give way, often summoned him for medical advice³⁰. . ." (Foltz, p. 132.)

Dr. Foltz accompanied President Polk on a vacation trip to Bedford Springs, Pennsylvania, August 18–28, 1848 (Polk *Diary*, vol. 4, p. 85–103). Although no medical aid is referred to in the *Diary*, it is likely Dr. Foltz went as medical adviser. The author of *Surgeon of the Seas* remarks that Dr. Foltz "had made a thorough study of our medical waters and had published an elaborate treatise on them."^{31,32} (Foltz, p. 133.)

²⁹ A reading of Polk's *Diary* will hardly support the statement of Wold (p. 72) that "while Polk was President, he was sickly a good share of the time."

³⁰ This is possibly familial exaggeration; in any event it is not supported by the *Diary* which refers to Dr. Foltz only in reference to the Bedford Springs vacation.

³¹ The possibility of medical care of Presidents Polk and Tyler at White Sulphur Springs by the resident physician, John Jennings Moorman, is indicated in HINSDALE, G. John Jennings Moorman, M.D.; a biographical note. *Ann. M. Hist.* n.s. 6: 356–358, 1934.

³² This treatise has not been identified.

ZACHARY TAYLOR (1784–1850)

12th President, 1849–1850

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HEALTH OF PRESIDENT TAYLOR

President Taylor first became seriously ill in office in August 1849 while on a trip through the East. "At Harrisburg and Carlisle he was attacked by what was first thought to be cholera, but though weak he insisted on continuing his journey. At Erie August 25 he was again attacked by severe diarrhgia and raging fever so alarming in their effects that for two days Dr. Wood and his consulting physicians feared for his life. . . . But he recovered and on September 1 left for Niagara Falls and Buffalo." (DYER, BRAINERD. *Zachary Taylor*. Baton Rouge, Louisiana State University Press, 1946, p. 202–204.)

President Taylor became ill after attending a Fourth of July celebration at the Monument Grounds in Washington and died at the White House July 9, 1850. His death has been ascribed to an intestinal infection (cholera morbus) complicated by heat exhaustion (Wold, p. 78).

PHYSICIANS TO PRESIDENT TAYLOR

During the critical stage of the President's illness at Erie Dr. William M. Wood of the Navy, stationed at Erie Harbor, was called in as consultant by Dr. Robert Wood. The President was then moved to the Naval Surgeon's residence in Erie where he remained until well enough to travel. (HAMILTON, HOLMAN. *Zachary Taylor*. New York, Bobbs-Merrill, 1951. vol. 2, p. 226.)

Robert Crooke Wood (1800–1869); M.D., Medical Department, Columbia College.

FRANCIS, S. W. Biographical Sketch of General R. C. Wood, M.D., *Med. Surg. Reporter* 20: 275–276, 1869.

The article does not refer to Dr. Wood's medical service to President Taylor.

Dr. Wood was the son-in-law of President Taylor. He was stationed at Fort McHenry, Baltimore, at the time of the President's last illness. He was Assistant Surgeon General, U. S. Army, 1862–1865.

William Maxwell Wood (1809–1880); M.D., University of Maryland, 1829.

Surgeon-General, U. S. Navy, 1869–1871.

KERR, W. M. William Maxwell Wood (1809–1880); the first Surgeon-General of the United States Navy. *Ann. M. Hist.* 6: 387–425, 1924.

The Taylor episode is not referred to in Dr. Kerr's biography.

Physicians present during President Taylor's last illness

The President had as personal physician in his last illness Dr. Alexander S. Wotherspoon.³³ Captain Wotherspoon had as consultants Major Robert C. Wood, Captain Richard H. Coolidge, and Dr. James Crowdhill Hall (Hamilton, *op. cit.*, vol. 2, p. 388–390).

Alexander Somerville Wotherspoon (1817–1854); M.D., College of Physicians and Surgeons, New York City, 1841.

Army Surgeon, 1843–54.

Richard Hoffman Coolidge (1820–1866); M.D., College of Physicians and Surgeons, New York City, 1841.

Army Surgeon, 1841–1865.

James Crowdhill Hall (1805–1880).

MILLARD FILLMORE (1800–1874)

13th President, 1850–1853

HEALTH OF PRESIDENT FILLMORE

"President Fillmore, by the advice of his physicians,³⁴ has taken apartments for the night in Georgetown, in consequence of the unhealthful condition of the White House. Of its unhealthfulness there can be no doubt. It is believed that almost every inmate of President Tyler and President Polk's families, white and black, were sick there; and there died Generals Harrison and Taylor, who entered its walls well; while from there, with the seeds of disease lurking in his frame, went President Polk, to die a short time afterwards. And there too, died the first Mrs. Tyler." "Unhealthy condition of the White House" [from the *Baltimore American*]. *Eclectic Med. J.* 2: 464, 1850.

³³ "... Dr. Weatherspoon, the trusted family physician, invited Drs. Coolidge and Hall, of Washington, for consultation; these three then sent for another eminent practitioner, Dr. Wood of Baltimore, who specialized in this type of disease." (Wold, p. 77.) Weatherspoon should of course read Wotherspoon. Presumably Dr. Wood was sent for because of his previous medical attendance on the President and in view of the fact that he was the President's son-in-law. He was probably not a specialist in the type of disease in question.

³⁴ Names not found.

FRANKLIN PIERCE (1804-1869)

14th President, 1853-1857

HEALTH OF PRESIDENT PIERCE

"... new responsibilities, and the Washington climate were combining to undermine his health. As early as April [1853] press reports began to appear containing news of illness. . . . On June 21 he was ill enough to cancel all engagements. . . . The hordes of mosquitoes made it impossible for him to escape the malaria, which was to trouble him a good deal, just as it had made miserable many of his predecessors." (NICHOLS, R. F. *Franklin Pierce*. 2d ed. Philadelphia, University of Pennsylvania Press, 1958. p. 242-243.)

"In the midst of the heat, the President was ill again. . . . But from heat, malaria and Kansas there seemed no relief." (*Ibid.*, p. 478.) "... late in November, the executive was stricken again; neuralgia was his master and its sharp pains necessitated cessation of labor." (*Ibid.*, p. 495.) [The year is 1856.]

"During Pierce's Presidency, his health appears to have been good except for a persistent cough which was caused by a chronic bronchitis." (Wold, p. 83.)

PHYSICIAN TO PRESIDENT PIERCE

Thomas Miller (1808-1873).

"During the Pierce administration he [Miller] was physician to the President's family." GOUVERNEUR, M. *As I Remember*. New York, Appleton, 1911. p. 255.

"Mr. Pierce was a frequent visitor at our House." (MILLER, V. Dr. Thomas Miller and his times. *Records, Columbia Historical Society, Washington, D. C.*, vol. 3, p. 312.)

JAMES BUCHANAN (1791-1868)

15th President, 1856-1861

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JB 1. ELY, A. W. The poisoning at the National Hotel. *N. Orleans M. & S. J.* 13: 796-799, 1857.

Mr. Buchanan's case, p. 796. The author favors the theory that an attempt had been made to poison the President-elect.

JB 2. HALL, J. C. [On the National Hotel disease] *Am. M. Month.* N. Y. 7: 355-358, 1857.

PHYSICIANS TO PRESIDENT BUCHANAN

Jonathan M. Foltz (1810–1877).

"Dr. Foltz was . . . an intimate personal friend and the medical advisor of President Buchanan, whom he treated for the mysterious 'National Hotel malady'." *Trans. Am. M. Ass.* 33: 557, 1882.

"Dr. Jonathan M. Foltz, the first regular White House physician,³⁵ was a family friend of James Buchanan and had his own room in the White House." McINTIRE, R. T. *White House Physican*, New York, Putnam, 1946. p. 58–59.

On January 25 or 26, 1856, when Buchanan was President-elect, he became ill of the so-called National Hotel disease. Dr. Foltz, a member of the Buchanan party stopping at the National Hotel in Washington, treated Buchanan on the spot, and again a month later when the President-elect had a recurrence of the disease. Dr. Foltz, at Buchanan's "urgent request," had gone with him to Washington as his medical attendant during the inauguration ceremonies. Foltz was given a room at the White House and stayed on for several days, as the President continued to be unwell; he then returned to Philadelphia, where he was stationed. Dr. Foltz continued to occupy his White House room on his visits to Washington through the first half of 1858. Thereafter there was a gradual falling out with the President, and after midsummer, 1858, Dr. Foltz probably ceased to remain in any association with President Buchanan. This, of course, would account for the advent of Dr. Du Hamel in 1859.

William James Chamberlain Du Hamel (1827–1883); M.D., University of Maryland, 1849.

"Dr. Du Hamel was physician to the President of the U. S. in 1859, and was continued in that capacity, during the terms of three Presidents, to the employees of the Presidential mansion." ATKINSON, W. B., ed. *A Biographical Dictionary of Contemporary American Physicians and Surgeons*. 2 ed. Philadelphia, 1880. Biographical additions to the second edition. p. 5.

"Said to have attended the occupants of the White House for three Presidential terms." *History of the Medical Society of the District of Columbia, 1817–1909*. Washington, The Society, 1909, p. 247.

ABRAHAM LINCOLN (1809–1865)

16th President, 1861–1865

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AL 1. CRISP, W. H. The eyes of Abraham Lincoln. *Am. J. Ophth.* ser. 3, 15: 754–755, 1932.

³⁵ This statement can hardly be accepted.

- AL 2. CARMAN, L. D. Dr. Abraham Lincoln. *J. M. Soc. N. Jersey* 19: 102-103, 1922.
 "... it is the purpose [of the present article] to set forth what little medical knowledge the great President had, as revealed by his own writings."
- AL 3. Case, A. L.—, aged 56 years. . . . In U. S. Surgeon General's Office. *The Medical and Surgical History of the War of the Rebellion* (1861-1865). Part I. Surgical Volume. Second Issue. Washington, 1875, p. 305-306.
 Summary of the case including the post-mortem.
- AL 4. EISENSCHIML, O. *The Case of A. L.—, aged 56; Some Curious Medical Aspects of Lincoln's Death and Other Studies*. Chicago, Abraham Lincoln Book Shop, 1943. 55 p.
- AL 5. FRIEDBERG, E. Lincoln's chiropodist. *J. Nat. Assoc. Chir.* 44(4): 36-38, 1954.
- AL 6. GILMORE, H. R. Medical aspects of the assassination of Abraham Lincoln. *Proc. R. Soc. M., Lond.* 47: 103-108, 1954.
- AL 7. HOLT, E. E. Abraham Lincoln. *Ophth. Rec., Chic.* 23: 389-393, 1914.
 "Diagnosis of heterophoria not only from a portrait but from the diplopia which occurred . . . in 1860."
- AL 8. KEMPF, E. J. Abraham Lincoln's organic and emotional neurosis. *A. M. A. Arch. Neur. Psychiat.* 67: 419-433, 1952.
- AL 9. Last hours of President Lincoln. [Editorial] *Med. Times & Gaz., Lond.* 51: 468-469, 1865.
- AL 10. LEALE, C. A. [Last hours of President Lincoln] Manuscript letter dated July 20, 1867, to General B. F. Butler, Member of the United States Congress, Chairman of Assassination Investigating Committee. [14 p.] [Library of Congress]
 There are some marked differences between this and the account in AL 11. Most importantly, perhaps, the artificial respiration procedures of AL 11 are not indicated at all, and in AL 10 Leale states he probed the wound with his finger, while in the box, whereas this is omitted from AL 11.
- AL 11. LEALE, C. A. *Lincoln's Last Hours*, n.p., 1909. 16 p.
- AL 12. LONGMORE, T. Notes on some of the injuries sustained by the late President of the United States. *Lancet* 1: 649, 1865.
- AL 13. MARKENS, E. W. Lincoln and his relations to doctors. *J. M. Soc. N. Jersey* 19: 44-47, 1922.
- AL 14. MAXEY, E. E. The effect of impaired vision on Lincoln's personal habits. *Northwest M.* 25: 310-312, 1926.
- AL 15. MITCHELL, S. Diagnosis of heterophoria from a portrait. *Ophth. Rec., Chic.* 23: 224-226, 1914.

- AL 16. PURTLE, H. R. Lincoln memorabilia in the Medical Museum of the Armed Forces Institute of Pathology. *Bull. Hist. Med.* 32: 68–74, 1958.
- AL 17. SEGAL, C. M. Isachar Zacharie; Lincoln's chiropodist. *Publication Amer. Jewish Hist. Soc.* 43(2): 71–126, 1953–54.
- AL 18. SHUTES, M. H. *Lincoln and the Doctors: a Medical Narrative of the Life of Abraham Lincoln*. New York, Pioneer Press, 1933. 152 p.
- AL 19. SHUTES, M. H. *Lincoln's Emotional Life*. Philadelphia, Dorrance [1957]. 222 p.
- AL 20. STEWART, T. D. An anthropologist looks at Lincoln. *Annual Report of the Board of Regents of the Smithsonian Institution* . . . for the year ended June 30, 1952. Washington, 1953. p. 419–437, 4 plates.
- AL 21. [STONE, R. K.] The death of President Lincoln [including remarks on the autopsy]. *J. A. M. A.* 154: 856–857, 1954.
 Stone remarks that upon his arrival at the Peterson house "the case was surrendered to my care. . . ." He refers twice to Taft, calling him "my friend," but mentions no one else.
- AL 22. TAFT, C. S. Abraham Lincoln's last hours; from the note-book of an Army Surgeon present at the assassination, death, and autopsy. *Century Mag.* 45(n.s. 23): 634–636, 1892–93. Reprinted: Chicago, 1934.
 This is the most accurate and gracious of Taft's several accounts of Lincoln's last hours. He acknowledges the prior presence of Leale in the theatre box and this is the only account that refers to the presence of Dr. King. He further writes of Leale: "It was owing to Dr. Leale's quick judgment in instantly placing the almost moribund President in a recumbent position the moment he saw him in the box, that Mr. Lincoln did not expire in the theatre within ten minutes from fatal syncope." Compare Taft's highly egocentric account, in what is stated to be a letter to the author, dated March 1, 1900: OLDROYD, O. H. *The Assassination of Abraham Lincoln*. Washington, the Author, 1901, p. 29–31. Dr. Taft's half-sister adds more definite lustre to the role of her brother: "He [Taft] was the first surgeon to reach the President . . . [and] until the Surgeon General and the President's family physician arrived, my brother was in charge." Bayne, Julia Taft. *Tad Lincoln's Father*. Boston, Little, 1931, p. 202.
- AL 23. TAFT, C. S. Last hours of Abraham Lincoln. *Med. Surg. Reporter* 12: 452–454, 1865. Reprinted: *Chicago M. J.* 22: 227–231, 1865; *Chicago M. Examiner* 6: 310–314, 1865; *Brit. M. J.* 1: 569–570, 1865.

The article acknowledges the prior presence and activity of Dr. Leale in the box.

- AL 24. TAFT, C. S. [*Notes of the circumstances attending the assassination of Abraham Lincoln* . . . Washington, April 15, 1865] 5 p. type-written. [National Library of Medicine]

Time of the firing of the shot given as "about 10:30." Leale is not referred to in this account.

- AL 25. TEEVAN, W. F. How were the fractures of the orbital plates of the frontal bone of the late President Lincoln produced? *Lancet* 2: 105, 1865.

- AL 26. [WILSON, J.] [Letter evaluating Washington physicians as possible choices for physician to Lincoln] In MEARNs, D. C. *Lincoln Papers*. Garden City, N. Y., Doubleday, 1948, vol. 1, p. 318-319.

Reference to Miller, May, Lieberman, Hall, and others.

- AL 27. WOODWARD, J. J. [Report of the autopsy on the body of President Abraham Lincoln] 4 p. handwritten [National Archives].

Reproduced (in another hand) in AL 4.

HEALTH OF PRESIDENT LINCOLN

Varioloid following Gettysburg speech, November 19, 1863. "Lincoln became ill on the train leaving Gettysburg, so it is known that he was sick from the very day of the ceremony . . . until about the middle of December." (AL 18, p. 85.)

The President was shot between a few minutes after 10 and 10:30 p.m., Friday, April 14, 1865, and died between 7:20 and 7:30 a.m.³⁶, April 15. The autopsy was performed in the White House at noon, April 15.

PHYSICIANS TO PRESIDENT LINCOLN

Robert King Stone (1822-1872); M.D., University of Pennsylvania, 1845.

Lincoln's family physician and in charge at the death bed from the time of his arrival at the Peterson House.^{37,38}

³⁶ Leale (AL 11, p. 12) says 7:20 a.m.; Stone gives 7:30 (POORE, B. P., ed. *The Conspiracy Trial for the Murder of the President*. Boston, J. E. Tilton, 1865. vol. 1, p. 250). For Taft's statements see AL 23 and AL 24. Shutes (AL 18, p. 115-116) repeats the Taft statement of AL 23 and AL 24, without indication of source.

³⁷ Concerning the *time* of Dr. Stone's arrival, Leale states in his letter that Dr. Stone arrived "about 20 minutes after we had placed him [Lincoln] in bed in the House of Mr. Peterson" (AL 10, p. 2). In his 1909 account he is content to say Dr. Stone arrived "... apparently a very long time after we had cared for the President in Mr. Peterson's house." (AL 11, p. 14.) At the trial of the Lincoln conspirators Stone testified that he arrived at the Peterson House "about 10:15" (Poore, *op. cit.*, vol. 2, p. 250). Even on the earliest estimate of the shooting (a few minutes after 10) NICOLAY, J. G., AND HAY, J. *Abraham Lincoln; a History*. New York, Century, 1914. vol. 10, p. 301), the estimate by Stone would appear to be too early. Regarding the *order* of Stone's arrival Leale writes: "Several

Washington Chew Van Bibber (1824–1872); M.D., University of Pennsylvania, 1845.

Baltimore physician, consultant to Dr. Stone during the varioloid incident. Dr. Van Bibber's role as consultant is described in FINNEY, J. M. T. *A Surgeon's Life*. . . . New York, Putnam, 1940, p. 259. Dr. Van Bibber is not mentioned by Shutes (AL 18).

Physicians present in the box at Ford's Theatre

Charles Augustus Leale (1842–1932); M.D., Bellevue Hospital Medical College, 1865.

The first physician³⁹ to reach the President. In charge until the arrival of Dr. Stone. Appointed Assistant Surgeon, U. S. Volunteers, April 8, 1865.

physicians arrived [at the Peterson House] among whom were Dr. Leiberman and Dr. Ford . . . in a short time Dr. Stone arrived." (AL 10, p. 11.) In AL 11 Leale lists Dr. Stone as the first physician "taking a professional part in the care of the President to arrive" (p. 13). He then lists Barnes and Crane. Taft has Stone and Barnes arriving simultaneously: "Surgeon General Barnes and Robert K. Stone, M.D., the family physician, arrived and took charge of the case." (AL 23, p. 453.) Actually Barnes arrived much later than Stone. Leale speaks of his "long delay in arriving" (AL 11, p. 10), and at the trial of the Lincoln conspirators the Surgeon General testified he was in attendance on Secretary Seward "a few minutes after 11 o'clock" (Poore, *op. cit.*, vol. 2, p. 21), his arrival at the Peterson House being correspondingly later.

³⁸ There is conflicting evidence as to who was in final charge of the case. Leale explicitly states in his letter: "Dr. Stone arrived. I was introduced to Dr. Stone as having charge of him. I asked Dr. Stone if he would take charge . . . he said 'I will.'" (AL 10, p. 11.) The problem is whether Barnes assumed charge upon arrival. Leale never removes Dr. Stone from his charge of the case though he reports that upon the arrival of the Surgeon General he reported to the Surgeon General what he had done and officially detailed to him his diagnosis. (AL 11, p. 10.) Taft writes: "Surgeon General Barnes and Robert King Stone, M.D. the family physician arrived and took charge of the case." (AL 23, p. 453.) Leaving aside the telescoping of the time sequence, this implies that Barnes and Stone were jointly in charge. Sandburg writes: "Dr. Robert K. Stone, the Lincoln family physician, arrives, followed soon by Surgeon General Joseph K. Barnes and his assistant Dr. Charles H. Crane, who take charge." (SANDBURG, CARL. *Abraham Lincoln: the War Years*. New York, Harcourt, 1939, vol. 4, p. 288.) Sandburg seemingly believes that Barnes and Crane were finally in charge. J. A. Bishop is explicit: "The doctors held a conference in the bedroom and they agreed that Surgeon General Barnes should take charge of the case." (*The Day Lincoln Was Shot*. New York, Harper, 1955, p. 238.) This, however, is dubious.

³⁹ The *New York Herald* for April 18, 1865, has an accurate account of the role of Drs. Leale, Taft, and King. This account, incidentally, reports that Barnes turned over the case of Secretary Seward to a Dr. Norris, presumably Basil Norris, (notwithstanding the fact that Dr. T. S. Verdi has Dr. Norris, *U.S.N.* in his letter "Full particulars of the attempted assassination of the Hon. Secretary Seward, his family and attendants. Washington, April 21st 1865." *Western Homoeopathic Observer*, St. Louis, 2: 81–86, 1865). *Frank Leslie's Illustrated Newspaper* for May 6, 1865, (p. 193) indicates that the President

Charles Sabin Taft.

"... [the first physicians] who reported and simultaneously offered their services to me, which were accepted, were Charles S. Taft, M.D., Acting Assistant Surgeon, United States Army, and Albert F. A. King, M.D., Acting Assistant Surgeon, United States Army." (AL 11, p. 14.) Shutes (AL 18, p. 112), Sandburg (*op. cit.*, vol. 4, p. 284), and others have Taft (and King) active in the artificial respiration measures of AL 11. The identification of Taft and King with the two assistants referred to in AL 11, p. 6, would seem to go beyond the evidence. Taft himself does not refer to the measures in question in any of his several accounts. It was Taft, of course, who was lifted into the box from the stage, not Leale, as C. W. Robertson and others would have it. Leale entered by the stairway.

Albert Freeman Africanus King (1841–1915); M.D., Columbia Medical College, 1861; University of Pennsylvania, 1865.

"... observations of the pulse and respiration were noted down by Dr. A. F. A. King at the bedside ... the pulse was counted by Acting Asst. Surgeon Ford." (AL 23, p. 453.)

Physicians in attendance at the Peterson House (in addition to Leale, Taft, King, and Stone)

Joseph K. Barnes (1817–1883); M.D., University of Pennsylvania, 1838.
Surgeon General, U. S. Army, 1864–1882.

The role of Barnes in the case is described in the two accounts of Leale and in those of Taft. There are, however, discrepancies between Leale's two accounts as well as between the accounts of Taft and Leale.

Charles H. Crane (1825–1883); M.D., Harvard, 1847.
Surgeon General, U. S. Army, 1882–1883.

"Col. Crane had charge of the head during a great part of the time, being relieved in this duty by myself." (AL 23, p. 453.)

Charles Mason Ford (1840–1884); M.D., University of Pennsylvania, 1861.

"During the greater part of the night, the pulsations were counted by Dr. Ford and noted by Dr. King." (AL 10, p. 13.)

was kept in the theatre box for about 20 minutes after he was shot, and Leale writes in AL 10 (p. 9) that the President was placed in the bed at the Peterson House "in less than 20 minutes from the time that he had been assassinated."

Other physicians present at the Peterson House

"During the night several other physicians unknown to me called, and through courtesy I permitted some of them to feel the President's pulse, but none of them touched the wound." (AL 11, p. 14.)

"Several physicians now arrived among whom were Dr. Lieberman and Dr. Ford. . . ." (AL 10, p. 11.)

"During the night Drs. Hall, May, Lieberman, and nearly all the leading men of the profession in the city tendered their services." (AL 23, p. 454.)

"Surrounding the deathbed of the President were . . . Drs. E. W. Abbott, R. K. Stone, C. D. Gatch, Neal, Hall, and Lieberman." [Washington] *Evening Star*, April 15, 1865 (2d ed.).⁴⁰

Ezra W. Abbott.

Dr. Abbott⁴¹ made a detailed record, at generally five-minute intervals, of Lincoln's condition and some other events which took place during the last hours. These so-called "minutes" run from 11:00 p.m., April 14, to 7:20 a.m., April 15. They were published in the *New York Daily Tribune* for April 17, 1865 (p. 2). They are not to be confused with the pulse and respiration table of Ford and King, the latter published in AL 23 (p. 453-454). Dr. Abbott's "Minutes" are also published in Oldroyd, *op cit.*, p. 32-35. They are briefly excerpted in *New York M. J.* 74: 505, 1901.

Dr. E. W. Abbott is listed as a homeopathic physician in *Boyd's Washington and Georgetown Directory* for 1866. Butler's and Polk's *Directories* place him in New Hampshire, 1874 to 1906.

C. D. Gatch.

Not further identified.⁴²

James Crowdhill Hall (1805-1880).⁴³

The Secretary of the Navy writes of his arrival at the Peterson House: "Several surgeons were present, at least six, I should think more. Among

⁴⁰ The *New York Herald* of April 16 (p. 1) has E. N. Abbott and C. D. Hatch; the *New York Daily Tribune* for April 17 (p. 2) has Neal Hall, and Mr. Lieberman.

⁴¹ Oldroyd (*op. cit.*, p. 32) supplies the otherwise elusive first name. LAUGHLIN, CLARA E. *The Death of Lincoln*. (New York, Doubleday, 1909), which has Dr. Abbott as "attending physician" and Taft in charge in the box, was apparently based on Oldroyd.

⁴² C. W. Robertson (*Bost. Med. Quart.* 8: 33-43, 76-86, 1957) has Dr. Charles Gatch along with Leale and King attending the President in the theatre box. Dr. Gatch was almost certainly not present since he is mentioned neither by Leale nor by Taft.

⁴³ Shutes has Neal Hall (AL 18, p. 114) but makes certain the identification with J. C. Hall by adding he was the physician "with whom Dr. Stone consulted in the last illness of Willie Lincoln." Shutes repeats the error in AL 17, p. 142, and in his article "Mortality of the five Lincoln boys," *Lincoln Herald* 57: 5, Spring-Summer (nos. 1-2) 1955.

them I was glad to observe Dr. Hall, who, however, soon left. I inquired of Dr. H., as I entered, the true condition of the President. He replied the President was dead to all intents, although he might live three hours or perhaps longer." *Diary of Gideon Welles*. Boston, Houghton, 1911, vol. 2, p. 286.

"The Surgeon General was sent for and Drs. Hall and Stone also arrived." *National Intelligencer*, April 16, 1865.

Charles H. L. Lieberman (1813–1886); M.D., University of Berlin, 1838.

Washington physician.

John Frederick May (1812–1891); M.D., Columbian Medical College, 1834.

Washington physician.

Dr. Neal.

Possibly William R. Neal, Washington representative of the U. S. Sanitary Commission, though not a physician.

Beecher Todd.

"Dr. Beecher Todd of Lexington, a cousin of Mrs. Lincoln, was there through the long night." (AL 18, p. 114.)

*Physicians present at autopsy*⁴⁴ (in addition to Barnes, Crane, Stone, and Taft)

Edward Curtis (1838–1912); M.D., College of Physicians and Surgeons, New York, 1864.

Army Surgeon, 1863–1870. Dr. Curtis was Woodward's assistant at the Army Medical Museum from 1864 to 1870. He had been a Medical Cadet, U. S. Army, 1861–1863. Co-author with John Shaw Billings of a report on cryptogamic growths in cattle diseases (1869), one of the earliest investigations on the subject of the bacterial causation of disease. Aided Woodward at autopsy.

William Morrow Notson (d. 1882); M.D., Jefferson Medical College, 1861.

Medical Officer, U. S. Army, 1862–1882.

Presumably his combination of names derives from the *New York Daily Tribune* account of April 17.

⁴⁴ According to Woodward (AL 26) the autopsy was performed at 12:00 noon. The *New York Daily Tribune* for April 15 and Shutes (AL 18, p. 116) have 11:00 a.m.

Joseph Janvier Woodward (1833–1884); M.D., University of Pennsylvania, 1853.

Performed autopsy and submitted a report of the autopsy to Barnes. Pioneer in microphotography at the Army Medical Museum. (34th President, American Medical Association, 1882/83.)

ANDREW JOHNSON (1808–1875)

17th President, 1865–1869

HEALTH OF PRESIDENT JOHNSON

Illness June 26–July 9, 1865. "The President has been ill . . . he has been threatened, Dennison tells me, with apoplexy.⁴⁵ So the President informed him." (*Diary of Gideon Welles*. Boston, Houghton, 1911. vol. 2, p. 327; entry for July 8, 1865.) Entry for July 9; "The President was afflicted with a severe headache. . . ." (*Ibid.*, p. 330.) Welles reports the President better on the 10th and thereafter.

"Afflicted with gravel, he found no cessation from pain, and but little relief in standing while at work for hours, in preference to remaining in a sitting posture, or from the variety of an occasional 'fit of the gravel,' with its excruciating torture." COWAN, FRANK. *Andrew Johnson, President of the United States; Reminiscences of his Private Life and Character; by One of his Secretaries*. 2d ed. Gretna, Pa., Oliver, 1894, p. 7.

Residual effects of a fracture of the arm some years before. ROYALL, M. S. *Andrew Johnson, Presidential Scapegoat*. New York, Exposition, 1958, p. 62.

PHYSICIAN TO PRESIDENT JOHNSON

Basil Norris (1828–1895); M.D., University of Maryland, 1849.

Surgeon, U. S. Army, 1852—. "... attended officially President Andrew Johnson and President U. S. Grant during their entire terms of office. . . ." (*Records of Living Officers of the United States Army*, Philadelphia, Hamersly, 1884, p. 43.)

Colonel Norris became involved in an acrimonious debate concerning private medical practice of Army and Navy physicians in Washington. The Medical Association of the District of Columbia set up a committee to investigate this and their report reads in part:

Upon this point your committee beg to state that they have examined somewhat in detail into the practice which has obtained here in this city for the past ten or twelve

⁴⁵ "It was generally rumored that Johnson had a stroke during this period [July 1865], but there is no evidence either to support or deny this hypothesis." (Wold, p. 118.)

years, and find that it has been and still is the custom of certain Army Medical Officers on duty here in Washington to engage extensively in private practice, rendering their services, for the most part, gratuitously and in many instances supplying parties not immediately connected with the army with medicines and hospital supplies from the Army Dispensary of this city. That so far has this practice been pursued that Presidents of the United States, we are informed, have not hesitated to avail themselves of the services of any Army Medical Officer stationed here for themselves and families, and permitted him to supply them with medicines, etc., from the public dispensary belonging to the United States. This practice on the part of the Chief Magistrate of the States, we are informed, was initiated by President Johnson and followed by his successor, President Grant, during both of his terms as President of the United States. In the latter case it appears he not only recognized and availed himself of the benefits of this custom, but permitted his influence to be used to retain at this post the particular Medical Officer who had held such relations to his family, and who, under the rules of the Department, should have been transferred to some other post or duty. So far, indeed, was this prerogative exercised by President Grant that this same Medical Officer was required more than once to leave his legitimate duties here in Washington and visit distant points for the purpose of attending the family of the President. It is due to President Grant to add, in this connection, that previous to his term there was a contract surgeon detailed to attend the domestics employed at the Executive Mansion, which was abolished by him. (BUSEY, SAMUEL C. *Personal Reminiscences* . . . Washington, D. C., 1895. p. 305.

ULYSSES S. GRANT (1822-1885)

18th President, 1869-1877

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Dr. Shradly was one of the consulting surgeons during Grant's last illness. The other physicians were Fordyce Barker, Grant's family physician, John H. Douglas, and Henry B. Sands.⁴⁶

PHYSICIAN TO PRESIDENT GRANT

Basil Norris (1828-1895).

RUTHERFORD B. HAYES (1822-1893)

19th President, 1877-1881

No information located.⁴⁷

⁴⁶ Of special interest to medical librarians is Grant's first physician, Dr. John George Rogers of Richmond, Ohio, who was in attendance at the birth of the future President, and was the great, great grandfather of Dr. Frank B. Rogers, Director of the National Library of Medicine.

⁴⁷ The President's diary for December 16, 1878, notes the presence at a small White House gathering of "Dr. and Mrs. Woodworth" (WILLIAMS, C. R. *Diary and Letters of*

JAMES A. GARFIELD (1831-1881)

20th President, 1881

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Dr. Baker correctly diagnosed the course of the bullet on the above date.

- JG 2. BLISS, D. W. Report of the case of President Garfield accompanied with a detailed account of the autopsy. *Med. Rec.*, N. Y. 20: 393-402, 1881. Also: *Walsh's Retrospect* 2: 542-557, 1881.

"The complete and technical report which will appear in due time under the editorial direction of J. J. Woodward" mentioned at the beginning of this article seems never to have appeared. The Reyburn report (JG 12) perhaps took its place.

- JG 3. BLISS, D. W. The story of Garfield's illness; told by the physician in charge. *Century Mag.* 23: 299-305, 1881.

- JG 4. The evidence [Editorial]. *Walsh's Retrospect* 3: 304-308, 1882.

In support of Dr. Baxter.

- JG 5. FISH, S. A. The death of President Garfield. *Bull. Hist. Med.* 24: 378-392, 1950.

- JG 6. The Garfield case. In ADAMS, J. H. *History of the Life of D. Hayes Agnew*, M.D., L.L.D. Philadelphia, F. A. Davis, 1892. p. 220-249.

- JG 7. HAMMOND, W. A., ASHHURST, J. JR., SIMS, J. M., AND HODGEN, J. T. The surgical treatment of President Garfield. *North. Am. Rev.* 133: 578-610, 1881.

Former Surgeon General Hammond is alone in believing the wound was not necessarily mortal and that early treatment of the President was deficient. For a discussion of this article see *Med. Rec.*, N. Y. 20: 600, 1881.

- JG 8. HUNT, W. The post mortem examination of Garfield. *Med. Rec.*, N. Y. 20: 642, 1881.

Rutherford Birchard Hayes. Columbus, Ohio, State Archaeological and Historical Society, 1924. vol. 3, p. 514). Another guest of the evening recording the presence of the same couple designates them as "Assistant Surgeon General and Mrs. Woodward" (WILLIAMS, C. R. *The Life of Rutherford Birchard Hayes*. New York, Houghton, 1914. vol. 2, p. 310 (footnote)). In the indexes to both the *Diary* and the *Life*, Williams converts the name of the doctor in question to Woodward, J. J. (presumably intending Joseph Janvier Woodward). It is apparent, however, that the President has correctly spelled his guest's name; the second guest has given the doctor his approximately correct title and that he was, most probably, John Maynard Woodworth (1837-1879), Supervising Surgeon General, U. S. Marine Hospital Service.

- JG 9. JENNINGS, R. S. Cooling apparatus used at the White House. *Boston M. & S. J.* 105: 470-471, 1881.
- JG 10. MILLER, J. M. The death of James Abram Garfield. *Surg. Gyn. Obst.* 107: 113-118, 1958.
- JG 11. PARKER, O. W. The assassination and gunshot wound of President James A. Garfield. *Minnesota Med.* 34: 227-233, 258, 1951.
- JG 12. President Garfield's wound and its treatment. *Walsh's Retrospect* 2: 623-633, 1881.
Critical of Bliss's treatment of Garfield as reported in the *Medical Record*. Letters to Walsh from Smith Townshend, C. B. Purvis, N. S. Lincoln, and P. S. Wales, relating their respective roles in the case, p. 624-629.
- JG 13. PRICHARD, R. W., AND HERRING, A. L. JR. The problem of the President's bullet. *Surg. Gyn. Obst.* 92: 625-633, 1951.
The statement (p. 632) that J. Marion Sims was one of the President's physicians is presumably incorrect. On the relationship of Dr. Sims to the Garfield case see JG 7 and HARRIS, SEALE. *Woman's Surgeon; the Life Story of J. Marion Sims*. New York, Macmillan, 1950. p. 341-342.
- JG 14. REYBURN, ROBERT. The case of President James A. Garfield, an abstract of the clinical history. *Am. Med.* 2: 498-501, 1901.
- JG 15. REYBURN, ROBERT. Clinical history of the case of President James Abram Garfield. *J. A. M. A.* 22: 411-417, 460-464, 498-502, 545-549, 578-582, 621-624, 664-669, 1894. Also published as a separate under the same title: Chicago, Americal Medical Association, 1894. 108 p.
- JG 16. SHRADY, G. F. Surgical and pathological reflections on President Garfield's wound. *Med. Rec.*, N. Y. 20: 404-406, 1881.
- JG 17. SMITH, A. H. President Garfield at Elberon. *Am. Med.* 9: 118-120, 1905.
- JG 18. TEMKIN, O., AND KOUELKA, J. Simon Newcomb and the location of President Garfield's bullet. *Bull. Hist. Med.* 24: 393-397, 1950.
- JG 19. TURNIPSEED, E. B. A dissenting voice from the standpoints taken by D. W. Bliss, M.D., in regard to the diagnosis, prognosis, and treatment of the case of President Garfield. *Med. Rec.*, N. Y. 20: 621-624, 1881.
- JG 20. A violation of medical ethics [editorial]. *Walsh's Retrospect* 2: 457-459, 1881.
In support of Baxter.
- JG 21. WEISSE, F. D. Surgical reflections and anatomical observations bearing upon a possible course of the bullet that wounded President Garfield. *Med. Rec.*, N. Y. 20: 57-61, 1881.

JG 22. WEISSE, F. D. Surgico-anatomical study of the gunshot wound of President Garfield. *Med. Rec.*, N. Y. 20: 402-403, 1881.

For some additional articles relating to the Garfield case see *Index-Catalogue of the Library of the Surgeon General's Office, U. S. Army*, [ser. 1] vol. 5, p. 286.

ASSASSINATION OF PRESIDENT GARFIELD

President Garfield was shot at the Baltimore and Potomac railroad station in Washington, July 2, 1881. He died September 19 of the same year at Elberon, New Jersey, where he had been taken on September 6. Bulletins concerning the President's condition were issued two or three times daily and the case aroused the greatest interest both in the medical profession and in the citizenry at large. Dr. Bliss, physician-in-charge, and his consultants, were subjected to acrimonious criticism by fellow physicians and by the press. Public and professional temper was not assuaged when autopsy revealed among other errors of diagnosis that the bullet was in fact some ten inches from where the physicians had supposed it to be. Dr. P. M. Dale sums up the matter: "Whatever the source of the errors, public confidence in the medical profession at large was dealt a heavy blow." (*Medical Biographies*. University of Oklahoma Press, 1952, p. 218.)

PHYSICIANS TO PRESIDENT GARFIELD

Jedediah Hyde Baxter (1837-1890); M.D., University of Vermont, 1860.

Surgeon General, U. S. Army, Aug. 16-Dec. 4, 1890.

"I have been President Garfield's family physician for the past five or six years, and since his advent to the White House have continued to treat him professionally." (JG 16, p. 457.)

"Meulon, Ohio, Oct. 24th, 1881. This certifies that on or about August 8th, 1881, the late President James A. Garfield made the following statement to me in the presence of Mrs. Garfield, viz., that Dr. J. H. Baxter had been his physician for many years and that he still considered him as his physician. He also stated that he had no knowledge of ever having placed himself under the professional care of Dr. D. W. Bliss and he did not believe that Dr. Bliss had ever spoken one word to him upon the subject. Mrs. Garfield stated at the same time that she had never been consulted by Dr. Bliss upon the subject—and had no knowledge of the President having chosen Dr. Bliss as his attending Surgeon. [signed] S. A. Boynton, M.D. Trenton. Oct. 24th, 1881. I have read the statement of Doctor Boynton made this day and will say it is entirely correct. [signed] Lucretia R. Garfield." (JG 3, p. 305-307.)

"Baxter was the medical attendant at the White House during the early

administration of President Garfield, and considerable comment was caused by his failure to be included among the attending surgeons after the President had received his fatal injury. From the standpoint of a score of years later, it would appear to have been simply the outcome of professional competition and consequent animosity. At the time, however, the feeling on the subject ran high in Washington." (PILCHER, J. E. *The Surgeon Generals of the Army of the United States*, Carlisle, Pa., Association of Military Surgeons, 1905. p. 76.)

Physicians present from wounding to death and autopsy

The first physician (Dr. Smith Townshend) to reach the President after he was shot administered emergency measures and then had the President removed to a private room on the second floor of the station. Here Dr. Townshend was joined by Dr. Purvis, Dr. Bliss, and a number of other physicians who examined the President further, and after consultation decided to remove him to the White House.

"The physicians present at this consultation [at the depot] were Drs. D. W. Bliss, Smith Townshend, N. S. Lincoln, Basil Norris, P. S. Wales, John B. Hamilton, C. M. Ford, D. C. Patterson, C. B. Purvis, and Robert Reyburn." (JG 15, p. 413.)

The President was then taken to the White House in a police ambulance accompanied by Drs. Bliss, Townshend, and Wales. (JG 12, p. 624.)

"... we come next to the first formal consultation, in which some of the most prominent medical men in Washington took part. . . . I append their names as a part of this simple record. Dr. Smith Townshend, Health Officer, D. C., Dr. C. M. Ford, Dr. P. S. Wales, Surgeon-General, U.S.N., Dr. C. B. Purvis, Dr. C. C. Patterson, Dr. Basil Norris, U. S. A., Dr. N. S. Lincoln, Dr. J. B. Hamilton, Surgeon-General, Marine Hospital Service." (JG 3, p. 300.) The time is Saturday afternoon, July 2nd.

"At the evening consultation, July 2d (7 p.m.) . . . the gentlemen invited by me to visit the bedside were Surgeon-General Wales, Surgeon J. J. Woodward, and Dr. Reyburn." (JG 2, p. 394.)

"The consultations heretofore referred to were, as a matter of course, held in the adjoining room. Only three or four physicians of the number present were invited to visit the bedside on each occasion to make personal examinations, to verify the reported progress, and enable them to intelligently advise the council." (JG 2, p. 394.)

"Drs. Bliss and Reyburn remained on duty all the night of July 2 and 3. . . . Miss [e.g., Dr.] Edson . . . [was] also at hand to render any needed aid." (JG 15, p. 414.)

"All the physicians visited the White House at 8 a.m., July 3d, for the morning consultation. . . . At this consultation Surgeon-General Barnes

and Surgeon Woodward, U. S. A., Dr. Reyburn and Dr. N. S. Lincoln, visited the bedside of the patient with me, with a view of making the necessary examinations, dressing the wound, and of reporting results to the other members of the council." (JG 2, p. 394.)

Physicians in attendance through the morning of July 3d

Doctor Willard Bliss⁴⁸ (1825–1889 ; M.D., Western Reserve, 1845.

"Immediately after the shooting of President Garfield, on the morning of July 2d, I was summoned by the Secretary of War [Robert T. Lincoln] to take charge of the case." (JG 2, p. 393.)

"Immediately after the consultation [of Sunday morning, July 3d] the subject of medical attendance was considered by the President. The only persons present were, besides the President, Mrs. Garfield and myself. He then formally placed himself under my professional care, and requested me to select my counsel, the result of which is well known. He also desired me to individually thank the large number of physicians who had composed the council up to that time, which I accordingly did." (JG 2, p. 395.)

"Dr. Bliss as chief surgeon in charge of the case remained on continuous duty every night at the White House, from the time the President was shot until he was taken to Elberon, N. J., and he continued his vigils there until the death of the President. . . . All the medicine and all the articles of diet were either administered by him or under his immediate direction." (JG 15, p. 414.)

Smith Townshend (1836–1896); M.D., Columbian Medical College, 1870.

Health Officer of the District of Columbia, 1878–1891. He was dismissed from the case by Dr. Bliss Sunday afternoon. Dr. Townshend left an account of his role: JG 12, p. 624–625.

Charles Burleigh Purvis (1842–1929); M.D., Wooster Medical College, 1865.

The second physician to arrive after the President had been shot. Writing many years later (1908) Dr. Purvis says, "I was the first physician to attend the President after he was shot." (Letter cited in [Biography] *J. Nat. Med. Ass.* 45: 81, 1953.) But the Doctor's memory played him false,

⁴⁸ The life histories of four of the principal doctors involved in this case were curiously interwoven nearly twenty years before. In 1863–64 Bliss and Woodward, both attached to the Army Medical Museum, were to have given a course of lectures on military medicine and surgery; this early proposal for an Army Medical School had been initiated by Hammond and was backed by Barnes, but was rejected by Stanton. See BRINTON, J. H. *Personal Memoirs*, New York, Neale, 1914, p. 258–259; and LAMB, D. S. *A History of the United States Army Medical Museum, 1862–1917*. n.p., n.d., p. 23–25.

for his 1881 letter to Walsh describing his role in the case (JG 12, p. 625–626) states that Dr. Townshend was in attendance when he arrived, and this is in accord with all other accounts.

“As one of the physicians who attended President James A. Garfield . . . he is the only Negro physician to have served a president of the United States.” (*J. Nat. Med. Ass.* 45: 79, 1953.)

Joseph K. Barnes (1817–1883).

Chosen by Bliss as one of the consulting surgeons, July 4. Reyburn writes that from this time on “Surgeon General Barnes came twice a day in consultation with other surgeons.” (JG 15, p. 414.)

Seth R. Beckwith (1832–1905); M.D., Homoeopathic Hospital College, Cleveland, Ohio, 1853.

Examined the President at the White House July 2 and present at the consultations through Sunday morning, July 3. Dr. Beckwith describes his role in the case: *N. Y. Med. Times* 9: 221–222, 1881.

Charles Mason Ford (1840–1884).

John Brown Hamilton (1847–1898); M.D., Rush Medical College, 1869.

Dr. Hamilton was Surgeon General, U. S. Marine Hospital Service, 1879–1891. Dismissed by Bliss Sunday afternoon according to the *New York Herald* of July 5.

Nathan Smith Lincoln (1828–1898); M.D., University of Maryland, 1852.

District of Columbia physician. Dr. Lincoln describes his role: JG 12, p. 626–627.

Basil Norris (1828–1895).

In an interview published in the *New York Herald*, July 5, Dr. Norris indicated that he had participated in the consultations at the White House and had been taken to the bedside of the President. Dr. Norris, in general, approved of Bliss’s handling of the case.

DeWitt Clinton Patterson (1826–1893); M.D., Western Reserve, 1851.

Dr. Patterson, in an interview published in the *New York Herald*, reports he had heard the President had been shot dead and went to the White House in his official capacity as coroner for the District of Columbia. There Bliss invited him to join the consultations, so he was present Saturday evening and Sunday morning. He said he was taken to the bedside of the President once, briefly. According to the *New York Herald* of July 5

he was dismissed Sunday afternoon by a letter from Bliss. Patterson expressed approval of Bliss's handling of the case in the interview.

Robert Reyburn (1833–1909); M.D., Philadelphia College of Medicine and Surgery, 1856.

Doctor Reyburn reports he was summoned to the depot by a messenger from Bliss. He was selected as permanent consultant by Bliss, July 4. According to his own account, "Dr. Reyburn was assigned the duty of taking notes of the case, which were written each day by him in a book procured for that purpose." (JG 15, p. 414.)

Philip Skinner Wales (1837–1906); M.D., University of Maryland, 1856.
Surgeon General, U. S. Navy, 1879–1884.

He is said to have discovered the fractures of the ribs at the Saturday evening examination, a matter made much of by Bliss's enemies and denied by him and his friends. Dr. Wales was dismissed Sunday afternoon by Bliss. He describes his role: JG 12, p. 627–629.

Joseph Janvier Woodward (1834–1884).

Present at the depot, according to Purvis. Selected by Bliss as consulting surgeon, July 4. Woodward prepared the daily bulletins "and along with Dr. Robert Reyburn assisted in taking the temperature, pulse and respiration, which was done at least three times a day." (JG 15, p. 414.) "Drs. Woodward and Reyburn slept each night alternately in the White House, and were always on hand to furnish such assistance as might be required." (*Ibid.*)

Other physicians said to have been present through the morning of July 3d

William James Chamberlin Du Hamel (1827–1883); M.D., University of Maryland, 1849.

Present at the depot and again at the White House, July 5. (*New York Herald*, July 6.)

Francis M. Gunnell (1827–1922); M.D., Columbia University, 1847.

Surgeon General, U. S. Navy, 1884–1888.

Present at the Sunday morning consultation. (*New York Herald*, July 5.) Dismissed from the case by circular of Bliss, according to the same source.

David Low Huntington (1834–1899); M.D., University of Pennsylvania, 1857.

Present at the White House consultations ([Washington] *Evening Star*, July 4, 1881.) Army Surgeon, 1862–1898. Curator, Army Medical Museum, 1881–1883. Librarian, Army Medical Library, 1896–1897.

Joel Pomerene; M.D., Jefferson Medical College, 1861.

Surgeon, 42d Infantry, Ohio, to July 1863. (STRAIT, N. A., comp. *Roster of all Regimental Surgeons and Assistant Surgeons in the late War . . .* n.p., 1882. p. 198.)

“Dr. Homerine [*i.e.*, Pomerene] of Millersburg, Ohio, formerly Surgeon in Garfield’s old regiment, the 24th [*i.e.*, 42d] Ohio Volunteers, and an authority on gunshot wounds . . . had been summoned by the President’s personal request shortly after the shooting.” (*New York Herald*, July 4.) “Dr. Bliss spends nearly all of his time in the White House, and so does Dr. Homerine.” (*New York Herald*, July 5.) Dr. Pomerene arrived in Washington July 3d and left on the 7th. (*New York Herald*, July 24.)

Physicians in attendance July 4–Sept. 6 (in addition to Bliss, Barnes, Reyburn, and Woodward)

“It was perfectly apparent that there were more physicians in attendance upon the President than were needed, and Dr. Bliss determined to ascertain the President’s wishes in the matter. On the morning of July 3 after the morning consultation . . . Dr. Bliss went to the President and said: ‘Mr. President, there are a number of the physicians of the city who have kindly volunteered their services and have been associated with me in conducting your case successfully through the day and night since your injury, and have contributed largely to the prospects of your recovery. Now that Mrs. Garfield has arrived and you are so comfortable, we wish to retire from the case and ask you to select your permanent surgeon and his counsel.’ The President replied: ‘I wish you to retain charge of my case, and select such counsel as you may think best.’ . . . Dr. Bliss then said that if it was agreeable to the President and Mrs. Garfield, he would select Surgeon-General Barnes, U. S. A., Surgeon Woodward, U. S. A., and Dr. Robert Reyburn as his counsel. . . .” (JG 15, p. 414.) The President replied: “Doctor, your selection is eminently satisfactory.” Dr. Bliss then requested permission to thank the medical gentlemen in the name of the President and Mrs. Garfield, which was accordingly done. (*Ibid.*)

“At this time [Sunday evening, July 3d] Dr. D. Hayes Agnew, of Philadelphia, and Dr. Frank H. Hamilton, of New York, were summoned to

visit the patient in consultation. Dr. Agnew arrived about 4 o'clock the following morning, July 4th, and Dr. Hamilton at 6 a.m. They were presented to the President formally at the consultation, 8:15 July 4th. . . ." (JG 2, p. 395.)

David Hayes Agnew (1818–1892); M.D., University of Pennsylvania, 1838. Consultant from July 4 to the President's death. Present at autopsy.

ADAMS, J. H. *History of the life of D. Hayes Agnew*. Philadelphia, Davis, 1892. 376 p.

The Garfield case, p. 220–249.

John H. Girdner; M.D., University of the City of New York, Medical Department, 1879.

"[Dr. Girdner⁴⁹ was] an assistant to [F. H.] Hamilton [and] was frequently present." CALDWELL, ROBERT G. *James A. Garfield*. New York, Dodd, 1931. p. 353 (footnote).

Frank Hastings Hamilton (1813–1886); M.D., University of Pennsylvania, 1835.

Consultant from July 4th until the President's death. Present at autopsy.

Physicians at Elberon

The President was removed to Elberon, New Jersey, on September 6. "The car assigned for the use of the party contained besides the President . . . Mrs. Dr. Edson, Professor Agnew, Dr. Bliss, Surgeon-General Barnes, Dr. Woodward, Dr. Reyburn. . . ." (JG 15, p. 621.)

"The President desiring to diminish the number of his medical attendants, Surgeon-General Barnes, Dr. Woodward and Dr. Robert Reyburn retired from the case on the evening of September 7. Dr. Bliss remains in charge of the case and the services of Professor Agnew and Professor Hamilton are retained as consulting surgeons." (JG 15, p. 622.)

Physicians at autopsy

"Soon after the President expired, it became necessary to make arrangements for an autopsy . . . I deemed it proper to invite Surgeon-General Barnes, and Surgeon J. J. Woodward, U. S. A., and Dr. Robert Reyburn of Washington, D. C. . . . and also invited, at the instance of Dr. Woodward,

⁴⁹ His article "The death of President Garfield," *Munsey's Mag.* N. Y., p. 546–549, 1901–02, was not available for examination. He makes no reference to his own role in the Garfield case in his article: On the detecting and locating of metallic masses in the human body by means of the induction balance and the telephonic probe. *New York M. J.* 14: 393–396, 1887.

Dr. Lamb of the Army Medical Museum . . . The former gentlemen arrived at Elberon, N. J., about 3:45 p.m., when the post-mortem examination was commenced. Dr. A. H. Smith, of New Jersey and New York, and temporarily at Elberon was also invited." (JG 2, p. 398.) F. H. Hamilton and Agnew were also present.

Daniel Smith Lamb (1843–1929); M.D., Georgetown Medical School, 1867.

Dr. Lamb performed the dissection.

Andrew H. Smith (1837–1910); M.D., College of Physicians and Surgeons, New York, 1858.

Physicians acting as nurses to the President

Silas A. Boynton (b. 1835); M.D., Homocopathic Hospital College of Cleveland.

"The President's cousin, Dr. Boynton, attends the family [of the President] when they are home in Mentor. He returned to this city this morning, and will especially look after the health of Mrs. Garfield." Interview with Dr. Edson, *New York Herald*, July 8.

Dr. Boynton remained until the President's death, during which time he acted as the President's nurse. He was also present at the autopsy. Dr. Boynton is extremely critical of Bliss in a newspaper interview, reprinted in *American Homoeopathic Observer* 18: 492–494, 1881.

Susan Ann Edson (b. 1823); M.D., Cleveland Homeopathic Medical College, 1854.

The President's nurse until immediately after the removal of the President to Elberon, when she returned to Washington. (*New York Herald*, Sept. 9, 1881)^{49a} Dr. Edson had been Mrs. Garfield's physician.

CHESTER A. ARTHUR (1830–1886)

21st President, 1881–1885

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Not so very sick—Arthur's illness explained. *Baltimore American*, April 24, 1883.

^{49a} Dr. Edson left Elberon on September 8, apparently having shared in the reduction in force noted in JG 15, p. 622. The *Herald* for the 16th notes that Dr. Edson returned for a visit on the 15th, but her presence at the end is doubtful. She is not included among those said to have been present in accounts in newspapers and medical journals, nor does she claim this in her own sketch "The sickness and nursing of President Garfield . . ." in Balch, W. R. *Life of President Garfield*. Philadelphia, Hubbard, [c 1881] p. 612–620.

The article supplies some general information regarding the President's health.

HEALTH OF PRESIDENT ARTHUR

Nervous indigestion, especially during his last two years in the White House. (HOWE, GEORGE F. *Chester A. Arthur*. New York, Ungar, 1935. p. 256.)

Florida illness, from April 19, 1883.⁵⁰

PHYSICIANS TO PRESIDENT ARTHUR

Nathan Smith Lincoln (1828–1898).

The President's family physician according to the *Baltimore American*, April 23, 1883.

Clarence E. Black (d. 1884).

President Arthur was staying aboard the Presidential yacht *Tallapoosa* when he became ill in Florida. He is said to have been treated by the Ship's Surgeon on this occasion.⁵¹ This would have been Dr. Black, Surgeon, U.S.N. The *Tallapoosa* sank in 1884, Dr. Black perishing with the ship.

GROVER CLEVELAND (1837–1908)

22nd, 24th President, 1885–1889, 1893–1897

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HEALTH OF PRESIDENT CLEVELAND

Operations for cancer of the mouth July 1 and July 17, 1893.

⁵⁰ Wold (p. 141) calls the illness malaria, but his documentation is obscure. Wold's account would appear to be exaggerated, at least with respect to the immediate consequences, in light of the April 24 *Baltimore American* article and other considerations. Howe (*op. cit.*, p. 246), however, says the President never completely recovered from this illness, and that it forced him to adopt a reduced diet and a lightened schedule during the remainder of his term as President.

⁵¹ The ship's log (on file at the U. S. National Archives) notes when the President boarded and left the vessel but does not refer to his illness.

PHYSICIANS TO PRESIDENT CLEVELAND

Robert Maitland O'Reilly (1845–1909); M.D., University of Pennsylvania, 1886.

Surgeon General, U. S. Army, 1902–1909.

“Upon his return from sick leave (1882) he was assigned to duty as attending surgeon in Washington. . . . This duty he performed during the two administrations of President Cleveland, with whom his relations were most intimate and agreeable.” (PILCHER, J. E. *The Surgeon Generals of the Army of the United States of America*. Carlisle, Pa., Association of Military Surgeons, 1905. p. 90.)

“R. M. O'Reilly was family physician and intimate friend of President Grover Cleveland.” [Obit.] *Mil. Surg.* 31: 741, 1912.

George Miller Sternberg (1838–1915); M.D., College of Physicians and Surgeons, New York, 1860.

15th President, American Medical Association, 1898/99. Surgeon General, U. S. Army, 1893–1902.

“In 1893, President Cleveland not being in good health, his close personal friend and physician, Dr. Joseph D. Bryant, came at intervals from New York to see him and prescribe for him. Dr. Bryant asked General Sternberg if he would consent to see the President and prescribe for him should Mr. Cleveland require special medical care during Dr. Bryant's absence. General Sternberg agreed to respond to any call and to render every possible service. The President had great responsibility at that time and the constant anxiety caused by numerous important and vexatious legislative matters was a tremendous tax on his vitality. Dr. Sternberg became, therefore, a welcome advisor, and as the President's physician, he was greatly loved and trusted. He soon became very much attached to Mr. Cleveland, for they had many interests in common. Both were sons of ministers and both had a feeling of loyalty and love for New York state. In due time they became very good friends.” STERNBERG, MARTHA L. *George Miller Sternberg; a Biography*. Chicago, American Medical Association, 1920. p. 136.

Leonard Wood (1860–1927); M.D., Harvard University Medical School, 1884.

“... two Presidents of the United States adopted him as their family doctor—Cleveland and McKinley.” (BRADFORD, C. H. Leonard Wood. *New England J. Med.* 247: 526, 1952.)

“When Grover Cleveland was President of the United States, he asked

Daniel Lamart, his Secretary, to secure for attendance at the White House the services of a suitable surgeon of the Army. An officer now a Major General of the United States Army, was appealed to, and suggested Dr. Leonard Wood. After Mr. Cleveland left the White House, Dr. Wood continued as the attending physician to President McKinley." LOWRY, E. G. *Washington Close-Ups*. Boston, Houghton, 1921. p. 98.

"Wood saw nothing at first of the President or his family, for a superior officer attended them . . . [But] at last the President himself became aware of him and took him on an occasional fishing trip." (HAGEDORN, HERMANN. *Leonard Wood: A Biography*. New York, Harper, 1931, vol. 1, p. 135-136.)

Physicians in attendance at the cancer operations

Joseph Decatur Bryant (1845-1914); M.D., Bellevue Hospital Medical College, 1868.

59th President, American Medical Association, 1907/08.

Dr. Bryant performed the operations.

John Frederick Erdman (1864-1954); M.D., Bellevue Hospital Medical College, 1887.

Bryant's assistant in private practice.

Edward Gamaliel Janeway (1841-1911); M.D., College of Physicians and Surgeons, New York, 1864.

Assistant to Bryant during operation.

William Williams Keen (1837-1932); M.D., Jefferson Medical College, 1862.

Dr. Keen was assistant to Bryant during the operation. He published the first "official" account of the operation (GC 1). Keen was joint author with S. Weir Mitchell and George R. Morehouse of the celebrated *Gunshot Wounds and Other Injuries of Nerves*. Philadelphia, Lippincott, 1864.

BENJAMIN HARRISON (1833-1901)

23rd President, 1889-1893

PHYSICIAN TO PRESIDENT HARRISON⁵²

Jedediah Hyde Baxter (1837-1890).

Surgeon General, U. S. Army, Aug. 16-Dec. 4, 1890.

"At the time of General Moore's retirement [as Surgeon General of the Army] it so happened that these facts [Baxter's 'peculiar administrative

⁵² Mrs. Harrison died in the White House October 24, 1892, of pulmonary tuberculosis. For a remark on the possible involvement of the President see: Tuberculosis in the

ability,' etc.] coincided with . . . the incumbancy of the Executive by a comrade and long-time patient, President Benjamin Harrison. Colonel Baxter was then promptly on August 16, 1890, appointed Surgeon General." (PILCHER, J. E. *The Surgeon Generals of the Army of the United States*. Carlisle, Pa., Association of Military Surgeons, 1905. p. 77.)

WILLIAM MCKINLEY (1843-1901)

25th President, 1897-1901

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- WM 2. The official report on the case of President McKinley. *J. A. M. A.* 37: 1029-1036, 1901.
 Remarks on the operation by M. D. Mann, p. 1030; Report on the autopsy by H. R. Gaylord, p. 1033-1036; Report on the bacteriologic examination by H. G. Matzinger, p. 1036. Also as Report of the medical staff attending the late President William McKinley. *New York Med. J.* 74: 732-743, 1901. This last includes portraits of Rixey, M. D. Mann, Mynter, Park, Wasdin, McBurney, and Stockton.
- WM 3. PARMENTER, J. The surgery in President McKinley's case. An account of the operation narrated by one of the surgeons who assisted. *Buffalo M. J.* n.s. 41: 205-206, 1901.
- WM 4. RIXEY, P. M. Guarding the health of our Presidents. *Better Health*, San Francisco 6: 215-221, 1925.
 Portraits of Rixey, Grayson, Coupal, Sawyer, Delaney. Personal experiences as physician to McKinley and Roosevelt. Brief remarks on subsequent physicians to Presidents from Taft to Coolidge. Reprinted in WM 5, p. 454-461.
- WM 5. RIXEY, P. M. *The Life Story of Presley Marion Rixey, Surgeon General, U. S. Navy, 1902-1910*. Biography and autobiography. Biography by . . . William C. Braisted . . . and William Hemphill Bell, 1910. Strasburg, Va., Shenandoah Publishing House, 1930. 518 p.
- WM 6. RIXEY, P. M. Medical and surgical report of the case of the late

White House. [Editorial]. *Med. Rec.*, N. Y. 42: 512, 1892. Mrs. Harrison's physician was Dr. Franklin A. Gardner, a homeopath. The *Medical Mirror* (3: 471-472, 514, 1892) is critical of the President for allowing homeopathic attendance.

President of the United States. *Annual Report of the Surgeon General, U. S. Navy*, year ended June 30, 1901. p. 297-318.

Daily case record and autopsy. Also: WM 5, p. 51-82.

WM 7. WILSON, N. W. Details of President McKinley's case. Narrated by the recorder at the operation. *Buffalo M. J.* n.s. 41: 207-225, 1901. (Portraits of Park, M. D. Mann, Mynter, Parmenter, Wasdin, Rixey.)

HEALTH OF PRESIDENT MCKINLEY

Grippe, January 1900.

President McKinley was shot at about 4:07 p.m., September 6, 1901, while in the Academy of Music, Pan-American Exposition, Buffalo, New York. An operation was performed in the emergency hospital at the Exposition grounds. The President was then taken to a private home in Buffalo where he died at 2:15 a.m., September 14.

PHYSICIANS TO PRESIDENT MCKINLEY

Newton L. Bates (1837-1897).

Surgeon General, U. S. Navy, Oct. 1-18, 1897. Physician to the President, March-August 1897.

"President McKinley had a family physician and friend in Medical Director Bates and determined that he should be our next Surgeon-General, and he was appointed. He died a short time after." (WM 5, p. 295.)

Leonard Wood (1860-1927).

Physician to the President, 1897-April 1, 1898, at which time he left to organize the 1st Volunteer Cavalry (Rough Riders), with Theodore Roosevelt second in command.

George Miller Sternberg (1838-1915).

The President had appointed Rixey White House physician "... knowing that the frequent trips from Washington obligatory upon Dr. Sternberg in the capacity of White House physician were interfering with his duties as chief of the Medical Department of the Army... [However] at Dr. Rixey's suggestion Dr. Sternberg was asked to continue his visits to the White House as consulting Surgeon⁵³... and accordingly the two doctors met at the White House every Sunday morning, a practice which was

⁵³ Mrs. Sternberg implies that Dr. Sternberg's employment was restricted to Mrs. McKinley (*op. cit.*, p. 142, 228). And so too GIBSON, J. M. *Soldier in White; the Life of General George Miller Sternberg*. Durham, N. C., Duke University Press, 1958. p. 179-180.

continued until Dr. Sternberg went to the Philippines on a tour of inspection [June–September, 1901]. It was during General Sternberg's absence that Mr. McKinley died." (WM 5, p. 32–33.)

Presley Marion Rixey (1852–1928); M.D., University of Virginia, 1873.

Surgeon General, U. S. Navy, 1902–1910.

"Returning to Washington [after assignment to the Presidential party in a tour of the South, Dec. 13–20, 1898] I resumed my duties at the Naval Dispensary and looked upon the very pleasant experience as a thing of the past, as I thought that Surgeon General Sternberg, who had succeeded General Leonard Wood as White House physician, would continue. To my surprise, a few days later, the President sent for me and directed that in the future I was to be White House physician and that I should make two calls, 10 a.m. and 10 p.m. at the Executive Mansion and to hold myself in readiness to accompany him and Mrs. McKinley whenever they left Washington." (WM 5, p. 456.)

"... Dr. Rixey achieved national—and, indeed, international—fame through his devoted service at the bedside of President McKinley during his mortal illness, as well as on previous occasions, when the President was sick, and the family and more intimate friends of Mr. McKinley knew and often expressed their conviction that the complete recovery from a most virulent attack of grippe from which he suffered in January, 1900, was due to the excellent advice given and care exercised by . . . Dr. Rixey." (WM 5, p. 83.)

"President McKinley was most appreciative of my professional services as White House physician and informed me a few months before his death that he intended to appoint me Surgeon General of the Navy when the vacancy should occur, which would be in about a year. . . . After his death, Mr. Roosevelt carried out Mr. McKinley's promise. . . ." (WM 5, p. 459.)

Physicians present or in attendance at the emergency operation

"The President was immediately [after the shooting] conveyed to the Emergency Hospital on the Exposition grounds by the motor ambulance, where he arrived at 4:18. Dr. G. McK. Hall and Mr. Edward D. Mann, medical student of the house staff, were in charge of the ambulance, medical student T. F. Ellis being the driver. . . . On arrival at the hospital, President McKinley was . . . placed upon the table in the operating room and undressed. . . . Dr. Hall placed a temporary antiseptic dressing over the wound, and Mr. Mann ordered a nurse to administer . . . morphine and . . . strychnin. . . . Dr. Herman Mynter. . . was the first surgeon to arrive, at 4:45 o'clock. At that time Drs. P. W. Van Peyma, and Joseph Fowler, of Buffalo, and Dr. Edward Wallace Lee, of St. Louis, were present. Dr.

Mynter brought with him Dr. Eugene Wasdin, of the United States Marine-Hospital Service . . . Dr. Mynter inspected the President's wounds, and immediately saw their serious nature. He told the President that it would be necessary to operate, and at once set about making preparations, aided by . . . Dr. Nelson W. Wilson . . . Dr. Matthew D. Mann arrived at the hospital at 5:10 p.m. . . . He was followed, five minutes later, by Dr. John Parmenter. An examination was at once made, followed by a short consultation between Drs. Mann, Mynter and Wasdin, which resulted in the decision to operate at once . . . Dr. Mann was selected to do the operation, with Dr. Mynter as his associate . . . Dr. Mann selected Drs. Lee and Parmenter as assistants . . . Dr. P. M. Rixey . . . did not arrive until 5:30, when he gave very efficient service by guiding the rays of the sun to the seat of the operation by aid of a hand-mirror, and later by arranging an electric light. Dr. Roswell Park arrived just as the operation on the stomach was completed, and gave his aid as consultant. Mr. E. C. Mann had charge of the needles, sutures and ligatures. Mr. Simpson,⁵⁴ a medical student, was at the instrument tray . . . Besides those immediately engaged in the operation, there were present Drs. P. W. Van Peyma, Joseph Fowler, D. W. Harrington and Charles G. Stockton, of Buffalo, and Dr. W. D. Storer, of Chicago. . . . (WM 2, p. 1029.)

George McKenzie Hall; M.D., University of Buffalo, 1901.

The first physician to reach the wounded President. Assisted with lights during laparotomy (WM 6, p. 297). House physician at Emergency Hospital.

Joseph Fowler (d. 1908); M.D., University of Buffalo, 1873.

Deville W. Harrington; M.D., University of Buffalo, 1871.

Edward Wallace Lee.

Sponged during laparotomy. "Dr. Lee, of St. Louis . . . appeared early and voluntarily assumed charge of the medical department [of the Emergency Hospital]. He was relieved almost immediately by the resident staff." (WM 7, p. 208.)

Edward Cox Mann; M.D., University of Buffalo, 1902.

Matthew Derbyshire Mann (1845–1921); M.D., College of Physicians and Surgeons, New York, 1871.

⁵⁴ Burton Thorne Simpson, M.D. University of Buffalo, 1903.

Herman Mynter (1846–1903); M.D., University of Copenhagen, 1871.

Roswell Park (1852–1914); M.D., Chicago Medical College, 1876.

Medical director of the Pan-American Exposition, Buffalo, New York.

John Parmenter (b. 1862); University of Buffalo, 1883.

Sponged at laparotomy. (WM 6, p. 297.)

Charles G. Stockton (b. 1853); M.D., University of Buffalo, 1878.

“Dr. Stockton helped us in the last 3 days with the highest skill and best judgement.” (WM 2, p. 1031.)

Willis D. Storer; M.D., Northwestern University, 1888.

Peter W. Van Peyma; M. D., University of Buffalo, 1872.

Eugene Wasdin (1859–1911); M.D., Medical College of the State of South Carolina, 1882.

Surgeon, U. S. Marine Hospital Service. The first physician to reach the wounded President, according to Kelly and Burrage, *Dictionary of American Medical Biography* (1928), p. 1266. Administered anesthetic during laparotomy.

Nelson Waltow Wilson (1865–1915); M.D., University of Buffalo, 1898.

Sanitary officer of the Pan-American Exposition. In charge of the hospital until the medical director’s arrival. “Dr. Wilson was assigned to take records of the operation and time.” (WM 7, p. 210.)

Physicians in attendance at the Milburn House, Sept. 6–14

“I requested Dr. Roswell Park . . . to take personal charge of the removal of the President [from the operating room to the Milburn House].⁵⁵ On his arrival I assumed charge of the case, having as consultants Dr. M. D. Mann, of Buffalo . . . Dr. Roswell Park, of Buffalo . . . Dr. Herman Mynter, of Buffalo . . . Dr. Eugene Wasdin . . . Dr. Charles McBurney, of New York, joined the consultations at 3 p.m. September 8, and left for home after the 9:30 a.m. bulletin of September 12. Dr. Charles G. Stockton, of Buffalo . . . joined the consultations at 5 p.m. September 12. Dr. Edward G. Janeway, of New York, and Dr. W. W. Johnson, of Washing-

⁵⁵ “At 7:32 the patient was removed from the hospital in the ambulance. Dr. Rixey asked Drs. Park and Wasdin to go in the ambulance . . . Drs. Mann and Mynter followed in the carriages.” (WM 2, p. 1030.)

ton, D. C., arrived and Dr. McBurney returned after all hope had departed. All were present at the autopsy." (WM 6, p. 318.)

Edward Gamaliel Janeway (1841–1911).

William Waring Johnston (1843–1902); M.D., University of Pennsylvania, 1865.

Charles McBurney (1845–1913); M.D., College of Physicians and Surgeons, New York, 1870.

Additional physicians present at the autopsy (WM 6, p. 312)

Hermanus Ludwig Baer (b. 1874); M.D., Jefferson Medical College, Philadelphia, 1900.

Charles Cary (b. 1852); M.D., University of Buffalo, 1875.

Harvey Russell Gaylord (b. 1872); M.D., University of Pennsylvania, 1893.
Made histological examination of tissues. Performed autopsy.

William Pratt Kendall (b. 1858); M.D., College of Physicians and Surgeons, New York, 1882.

Surgeon, U. S. Army, 1885—

Herman G. Matzinger (b. 1860); M.D., University of Buffalo, 1884.

In charge of chemical and bacteriological work. Performed autopsy.

Edward Lyman Munson (1868–1947); M.D., Yale University, 1892.

Asst. Surg. (later Brig. Gen.), U. S. Army.

THEODORE ROOSEVELT (1858–1919)

26th President, 1901–1909

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TR 2. The condition of the President [Editorial]. *Med. News*, N. Y. 81: 655, 1902.

Some details of both leg operations. For additional information see: The President's injury [News of the Week]. *Med. Rec.*, N. Y. 62: 543, 1902; and *Buffalo M. J.* 42: 232, 1902.

TR 3. The little pus sac that killed Roosevelt. In RYAN, T. J. AND BOWERS, E. F. *Teeth and Health*. New York, Putnam, 1921. p. 163–164.

- TR 4. [RICHARDS, J. H.] Roosevelt's talks with his physician. Edited by Hermann Hagedorn. *Sat Eve. Post* 195: 40, 42, 44, 46 (Dec. 9) 1922.
Dr. John H. Richards was one of the physicians in attendance during Theodore Roosevelt's last illness, October 1918–January 6, 1919. The other physicians were Drs. Faller and John A. Hartwell (Wold, p. 168).
- TR 5. President Roosevelt's injury; consultation with Indianapolis physicians; operation at St. Vincent's Hospital. *Indiana M. J.* 21: 169–172, 1902–03.
Portraits of Drs. Cook, Oliver, Jameson.

HEALTH OF PRESIDENT THEODORE ROOSEVELT

Two operations for an abscess on the leg resulting from a bruise sustained in a trolley accident in Pittsfield, Massachusetts, September 3, 1902. The first operation was performed at St. Vincent's Hospital in Indianapolis, September 23, 1902. The second operation was performed in Washington, D. C., September 25, 1902.

Fall from a horse October 22, 1904, with injury to face. Incident not referred to by Rixey, WM 5.⁵⁶

Injury to left eye (December 1904) while boxing. The President became almost blind in this eye as a result of retinal detachment. The incident is not referred to by Rixey, *Life Story*.

PHYSICIANS TO PRESIDENT THEODORE ROOSEVELT

Presley Marion Rixey (1852–1928).

The official White House physician during the President's two terms.

Dr. Rixey was abroad from May 3 through August 28, 1906. Rixey left Drs. Braisted and Pryor in charge of the President and family during his absence. President Roosevelt wrote to Dr. Rixey from the White House

⁵⁶ Wold's account of this (p. 164) is apparently much exaggerated, to judge from the President's own story: "A week ago my horse put his foot through a rotten plank on a bridge and turned a somersault. I landed on my head and skinned my forehead. Most fortunately the papers have not seemed to get hold of it—which, as the mark was about the size of a small saucer and the skin came completely off, was remarkable." *Selections from the Correspondence of Theodore Roosevelt and Henry Cabot Lodge, 1884–1918*. New York, Scribners, 1925. vol. 2, p. 106. Roosevelt to Lodge October 31, 1904. Actually the *New York World* for November 3, 1904, did report the fall, but said that the President was back in his office the day following the accident and thereafter. Newspaper reporters noted nothing amiss, as the President left Washington for Oyster Bay, November 6. Edward Wagenknecht's *The Seven Worlds of Theodore Roosevelt* (New York, Longmans, 1958), which has a section on the President's health (p. 23–30), states, in connection with this incident, that the President "narrowly escaped meningitis." (p. 27).

on June 11, 1906: "Dr. Braisted and Dr. Pryor are taking splendid care of us. I like them both, particularly Dr. Pryor, who is such a nice little fellow." (WM 5, p. 338.)

William Clarence Braisted (1864–1941); M.D., Medical Department, Columbia University, 1886.

Surgeon General, U. S. Navy, 1914–1920. 73rd President, American Medical Association, 1920/21.

James Chambers Pryor (b. 1871); M.D., Vanderbilt University Medical Department, 1895.

Cary T. Grayson (1878–1938); M.D., University of South Medical Department, 1903.

"Surgeon Grayson came into the Navy during my [Rixey's] administration of the Bureau of Medicine and Surgery and was with me occasionally at the White House and notably on the one-hundred mile ride made by President Roosevelt, Major Archibald Butt, and myself, to Warrenton, Va., and return the same day." (WM 5, p. 460.)

"He was personal physician to President Roosevelt, Taft and Wilson, and although retired he remained the personal physician to President Wilson up to the time of his death." [Obit.] *Mil. Surg.* 82: 376, 1938.

"Surgeon to Presidents Roosevelt and Taft on board the Presidential Yacht 'Mayflower' " . . . *Who's Who in American Medicine*, 1925, p. 594.

Physicians in attendance at the first operation on the President's leg

"At 3:15 p.m. [Sept. 23, 1902] the President went . . . to St. Vincent's Hospital . . . the operation required was performed by Dr. John H. Oliver, of Indianapolis in consultation with the President's physician, Dr. George A. Lung, and Dr. George A. [*i.e.*, J.] Cook, Dr. Henry Jameson and Dr. J. J. Richardson." (WM 5, p. 258); (TR 5, p. 171.)

John H. Oliver (1859–1927); M.D., Medical College of Indiana, 1881.

George J. Cook (1844–1916); M.D., Kentucky School of Medicine, 1866.
Indianapolis physician.

Henry C. Jameson.

Indianapolis physician.

James Julius Richardson; M.D., University of Maryland, 1889.
Washington physician.

George A. Lung (1862–1921); M.D., University of Pennsylvania, 1886.

Naval Surgeon. Apparently Dr. Lung had been detailed by Rixey to accompany the President on his trip. Lung treated the President immediately after the accident in Pittsfield and was present at both operations.

Physicians present at the second operation in Washington

"The [second] operation was performed by Surgeon General Rixey, assisted by Dr. Lung and in consultation with Surgeon General O'Reilly and Drs. Shaffer, Urie and Stitt." Bulletin from the Secretary to the President as published in the *New York Herald*, September 29, 1902, p. 3. Reprinted: TR 2.

R. M. O'Reilly (1845–1909).

Newton Melman Shaffer (1846–1928); M.D., New York University Medical College, 1867.

Called in at the request of the President as consultant to Dr. Rixey. (WM 5, p. 258.)

Edward R. Stitt (1867–1948); M.D., University of Pennsylvania, 1899.

Surgeon General, U. S. Navy, 1920–1928.

J. F. Urie; M.D., Harvard, 1888.

Consulting physician

William Holland Wilmer (1863–1936); M.D., University of Virginia, 1885.

"A . . . serious handicap was defective eyesight. This was bad from birth, and it constantly grew worse. On December 12, 1904, Dr. William H. Wilmer, then an eye specialist in Washington and later head of the Department of Ophthalmology at Johns Hopkins Hospital, was called to the White House. President Roosevelt told him that he had for some time noticed a dimness of vision in his left eye after violent exercise. A few days previously he had been struck in this eye while boxing with a young army officer.^{57,58} Since then, black spots had floated in front of him. . . . Examina-

⁵⁷ For information on a previous injury to the President's left eye see the cartoon in HAGEDORN, H. *Leonard Wood*. New York, Harper, 1931. vol. 1, p. 402, and the statement on the following page: "He [Wood] cracked Roosevelt over the left eye with a single-stick and the bruise started wild rumors of duels with rapiers and broad-swords." The event is placed in "the last days of 1902."

⁵⁸ In his autobiography the President has "a young captain of artillery." (*Theodore Roosevelt; an Autobiography*. New York, Scribners, 1929 [c 1913] p. 41.) Wold (p. 164) has "a young naval officer," and so too TR 1, p. 92.

tion disclosed a minor hemorrhage in the retina; Dr. Wilmer ordered that Roosevelt refrain from his more energetic exercises. Otherwise he would lose the eye at once . . . another blow might cause a cataract to form. . . . For a time he was careful, but during 1908 the growth developed and from then on Roosevelt was blind in his left eye. Not more than a half-dozen people in the country knew it, however." PRINGLE, H. F. *Theodore Roosevelt; a Biography*. London, Cape [1932?] p. 18-19; Dr. William H. Wilmer to the author, Oct. 31, 1930.⁵⁹

According to the *Dictionary of American Biography* (Suppl. I, p. 722) Dr. Wilmer treated a succession of Presidents. C. H. Bagley writes: "Five of the Chief Executives of the United States . . . [were] Dr. Wilmer's patients." William H. Wilmer. [Obit.] *Surg. Gyn. Obst.* 62: 901, 1936.

WILLIAM HOWARD TAFT (1857-1930)

27th President, 1909-1913

PHYSICIANS TO PRESIDENT TAFT

"William H. Taft changed to the Army [for his physician], appointing Colonel A. M. [*i.e.*, M. A.] Delaney, but also made much use of Cary Grayson, then a young officer in the Navy Medical Service who had been Dr. Rixey's aid during the Roosevelt administration." (FDR 6, p. 59.)

Matthew A. Delaney (1874-1936); M.D., University of Pennsylvania, 1898.

Cary T. Grayson (1878-1938).

Thomas Leidy Rhoads (1870-1940); M.D., Jefferson Medical College, 1893.

"During this period (1909-13) he served as physician to President Taft, and for one year (1912-13) as his personal aid." [Obit.] *Mil. Surg.* 87: 388, 1940.

WOODROW WILSON (1856-1924)

28th President, 1913-1921

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⁵⁹ For an additional description of the event see MORISON, E. E., ed. *The Letters of Theodore Roosevelt*. Cambridge, Harvard University Press, 1951. vol. 4, p. 1065.

- WW 2. The illness of President Wilson. In *Hugh Young: a Surgeon's Autobiography*. New York, Harcourt, 1940. p. 398-403.⁶⁰
- WW 3. La maladie du President Wilson. *Chron. med.* 28: 52-55, 1921. See also p. 123.

HEALTH OF PRESIDENT WILSON

"As professor and President of Princeton . . . there was a retinal hemorrhage in his left eye which partially destroyed the sight of that organ."⁶¹ (WW 1, p. 81.)

Chronic neuritis (WW 1, p. 3, 81).

Headache and digestive disturbance. March? 1913 (WW 1, p. 2-3).

Influenza while attending the peace conference in Paris, 1919. "A few weeks ago the President was taken violently sick with the influenza. He was very sick for a few days. I am happy to say that he is now fully recovered." Grayson to Rixey, April 23, 1919, from Paris. (WM 5, p. 393.)

Asthmatic attacks at the peace conference, Spring 1919 (WW 1, p. 85).

"Asthmatic attacks and severe headaches" on Western Tour, Sept. 3-28, 1919. (WW 1, p. 97.)

"Slight paralytic stroke" Sept. 25 or 26, 1919. (WW 2, p. 399.)

Severe stroke with paralysis of the left arm and leg and left side of the face, at the White House, October 2, 1919. "He fell stricken with a thrombosis. . . . A clot had formed in an artery in the brain, though there was no rupture." (WW 1, p. 100.)

PHYSICIANS TO PRESIDENT WILSON

Cary T. Grayson (1878-1938).

The President's personal physician from 1912 until the President's death. "President Wilson appointed P. A. Surgeon Cary T. Grayson of the Navy as his official White House physician . . . His service was so much appreciated by Mr. Wilson, that he was promoted over the heads of two grades of older medical men from the rank of Surgeon, Lieutenant Commander to Medical Director, Rear Admiral. . . ." (WM 5, p. 460.)

⁶⁰ For a substantial disagreement with Dr. Young's account see WILSON, EDITH B. *My Memoir*. Indianapolis, Bobbs-Merrill, 1939. p. 291-292. Mrs. Wilson's account also disagrees with some details of Wold's account, this last, in turn, apparently based on HOOVER, IRWIN H. *Forty-Two Years in the White House*. Boston, Houghton, 1934. p. 102.

⁶¹ BAHN, C. A. The eyes of some famous historical characters. *Am. J. Ophth.* ser. 3, 16: 427, 1933. "President Woodrow Wilson . . . was blind in his right eye from retinal hemorrhage."

Consultants during stroke

During the stroke,⁶² Dr. Grayson reports, "I summoned in consultation Dr. Sterling Ruffin, Rear Admiral E. R. Stitt, and Dr. F. X. Dercum. Later I called in Dr. H. A. Fowler, Dr. Hugh Young, Dr. George De Schweinitz and Dr. Charles Mayo. At intervals the President's friend and classmate, Dr. E. P. Davis, would confer with me about the case." (WW 1, p. 100.)

Edward Parker Davis (1856–1937); M.D., Rush Medical College, Chicago, 1882; Jefferson Medical College, 1888.

Philadelphia physician.

Francis Xavier Dercum (1856–1931); M.D., University of Pennsylvania, 1877.

Harry Atwood Fowler (b. 1872); M.D., Johns Hopkins, 1901.

Dr. Fowler's role is described in WW 2, p. 400.

Charles Horace Mayo (1865–1939); M.D., Northwestern University Medical School, 1888.

Sterling Ruffin (1866–1938); M.D., George Washington University, 1890.

George Edmund de Schweinitz (1858–1938); M.D., University of Pennsylvania, 1881.

75th President, American Medical Association, 1922/23.

Edward R. Stitt (1867–1948).

Hugh Hampton Young (1870–1949); M.D., University of Virginia, 1894.

WARREN G. HARDING (1865–1923)

29th President, 1921–1923

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- WGH 2. CLAUCH, B. S. Was President Harding's death due to medical ignorance? *Naturopath.*, N. Y. 28: 444–449, 1923.

⁶² According to Wold (p. 177), Dr. Grayson was in Philadelphia when the stroke occurred. But I. H. Hoover (*op. cit.*, p. 102) explicitly says he was at his home in Washington (and so Mrs. Wilson implies, *My Memoir*, p. 287).

WGH 3. President Harding's last illness: official bulletins of attending physicians [July 30–August 3]. *J. A. M. A.* 81: 603, 1923.

Attending physicians: C. E. Sawyer, R. L. Wilbur, C. M. Cooper, J. T. Boone, H. Work. The entry for August 2 gives a brief review of the President's previous health record.

WGH 4. WILBUR, R. L. The last illness of a calm man. *Sat. Eve. Post* 196: 64 (Oct. 13) 1923.

HEALTH OF PRESIDENT HARDING

Influenza, Spring 1923.

Final illness beginning with "an acute gastrointestinal attack associated with abdominal pain and fever" (WGH 3) around July 26 and ending in death, at San Francisco, August 2, 1923.

PHYSICIANS TO PRESIDENT HARDING

Charles E. Sawyer (1860–1924); M.D., Cleveland University of Medicine and Surgery, 1881.

"President Harding elected to have Dr. Sawyer as his official physician, and gave him the rank of Brigadier General in the Army [Mar. 1921], and he had Past Assistant Surgeon Boone of the Navy as his Assistant." (WM 5, p. 460.)

"Dr. Charles B. [*i.e.*, E.] Sawyer, a homeopath, was brought to Washington by President Harding. He was not only a close friend but had been Mrs. Harding's personal physician for many years." (FDR 6, p. 59.)

Joel Thompson Boone (1889–); M.D., Hahnemann Medical College, 1913.

Physician to the President from the fall of 1922 until the President's death.

Physicians during the last illness (in addition to the above)

Charles Miner Cooper (1873–); M.D., University of Edinburgh, 1897.

Ray Lyman Wilbur (1875–1949); M.D., Cooper Medical College, San Francisco, 1899.

76th President, American Medical Association, 1923/24. Secretary of the Department of the Interior, 1929–1933.

Hubert Work (1860–1942); M.D., University of Pennsylvania, 1885.

74th President, American Medical Association, 1921/22. Postmaster General, 1922/23. Secretary of the Department of the Interior, 1923–1928.

CALVIN COOLIDGE (1872-1933)

30th President, 1923-1929

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- CC 1. BOONE, J. T. The wrong "Aye, Aye." *Good Housekeeping* 100: 39-40 (April) 1935.

The article consists of non-medical anecdotes. Dr. Boone is described as Commander, U. S. N., formerly physician, "U. S. S. Mayflower."

- CC 2. BROWN, EDWARD W. Beneath a hospital window (with comments by Mrs. Coolidge). *Good Housekeeping* 100: 248 (May) 1935.

"Apart from being called in to treat a light cold I found very little to do for Mr. Coolidge . . . Once on a fishing trip he slipped, fell, and broke his left wrist . . . He was subject to asthma . . . Also, he sometimes had minor digestive disturbances." Dr. Brown does not supply dates for the ailments he lists. He was family physician in Plymouth, Massachusetts, until the President's death.

- CC 3. COUPAL, J. F. Football "medicine" (with comments by Mrs. Coolidge). *Good Housekeeping* 100: 219-220 (March) 1935.

Dr. Coupal reports: "It was a part of my work to report to the President daily at 6:30 P.M."

HEALTH OF PRESIDENT COOLIDGE

Asthma. (CC 1)

Minor digestive disturbances. (CC 1)

PHYSICIANS TO PRESIDENT COOLIDGE

Charles E. Sawyer (1860-1924).

From Oct. 11, 1923 to July 1924.

James Francis Coupal (1884-1935).

"When planning to move from Boston to Washington, Mr. Coolidge thought it expedient to make some provision for a medical advisor. He asked Colonel Blanchard, who had attended him in Boston, to recommend some one he knew. He suggested Major James F. Coupal, who was then on duty at the Museum of Medicine connected with the Smithsonian Institute.⁶³ He attended the Vice-President when his services were required and was made physician to the President upon the resignation of General Sawyer, who had been President Harding's medical attendant." Comment by Mrs. Coolidge (CC 2, p. 220). Major Coupal was physician to the President from July 1924 until March 1929.

⁶³ Actually the Army Medical Museum, of which he was the Curator, 1922-1924.

Joel T. Boone (1889–).

From 1923 until 1929.

HERBERT CLARK HOOVER (1874–)

31st President, 1929–1933

PHYSICIAN TO PRESIDENT HOOVER

Joel T. Boone (1889–).

Rear Admiral, U. S. Navy.

Admiral Boone was one of the physicians at the White House from the early fall of 1922 through the Harding and Coolidge terms, until Mr. Hoover took office, when he became the sole physician. Dr. Boone stayed on at the White House from the 4th to the 30th of March, 1932, during which time he examined Mr. Roosevelt, Dr. McIntire's arrival having been delayed. [Personal communication]

FRANKLIN DELANO ROOSEVELT (1882–1945)

32nd President, 1933–1945

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HEALTH OF PRESIDENT ROOSEVELT

Chronic sinus condition (FR 8, p. 57).

Influenza 1941 (FR 8, p. 139). "...influenza [Christmas 1943] and . . . several attacks of acute respiratory infections in the weeks that followed." (FR 8, p. 21.)

Bronchitis, winter-spring 1944 (FR 8, p. 183-187).

Death from "massive intracerebral hemorrhage" (FR 8, p. 243) at Warm Springs, Georgia, April 12, 1945. The President was stricken at 1:20 p.m. and died at 3:35 p.m.

PHYSICIANS TO PRESIDENT ROOSEVELT

Ross T. McIntire (1887-1959); M.D., Willamette University Medical Department, Salem, Oregon, 1912.

Surgeon General, U. S. Navy, 1938-1946.

Personal physician to the President, 1933-1945. Dr. McIntire was in Washington when the President died.

Naval assistants or consultants

Howard Gerald Bruenn (1905-); M.D., Johns Hopkins, 1929.

"The problem now [early 1944] was to protect the President's reserve strength, with constant watch on the heart, and this became the particular business of Commander Howard Bruenn." (FR 8, p. 183.) Dr. Bruenn was the only physician present at the time of the President's fatal attack; he administered emergency treatment until the end.

Charles F. Behrens (1896-); M.D., University of Pennsylvania, 1920.

Captain, U. S. Navy.

Robert Edwin Duncan (1894–); M.D., Jefferson Medical College, 1919.
Captain, U. S. Navy.

John Harper (1890–); M.D., Medico-Chirurgical College of Philadelphia, 1913.
Captain, U. S. Navy.

Civilian consultants

Paul F. Dickens (1895–); M.D., University of Nashville Medical Department, 1905.
Consultant in 1944.

Frank Howard Lahey (1880–); M.D., Harvard University, 1904.

Called in consultation, May 1944. 95th President, American Medical Association, 1941/42.

James E. Paullin (1881–); M.D., Johns Hopkins 1905.

97th President, American Medical Association, 1943/44. Dr. Paullin reached the President's bedside a few moments before his death.

HARRY S. TRUMAN (1884–)

33rd President, 1945–1953

PHYSICIAN TO PRESIDENT TRUMAN

Wallace H. Graham (1910–); M.D., Creighton University School of Medicine, 1936.

Brig. Gen. U. S. Air Force.

DWIGHT D. EISENHOWER (1890–)

34th President, 1953–1961

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DE 3. [President Eisenhower's medical history from boyhood to 1954] *Med. Ann. D. C.* 23: 281–282, 1954.

Excerpts from an interview with Dr. Snyder originally published in the *Washington Daily News*, Feb. 26, 1954.

HEALTH OF PRESIDENT EISENHOWER

Heart attack, Denver, September 1955.

Ileitis operation, June 1956.

Cerebral accident, November 1957.

PHYSICIANS TO PRESIDENT EISENHOWER

Howard McCrum Snyder (1881–); M.D., Jefferson Medical College, 1905.
Major General, U. S. Army.

Leonard D. Heaton (1902–); M.D., University of Louisville School of Medicine, 1926.

Surgeon General, U. S. Army, 1959– . Performed ileitis operation while Commanding General, Walter Reed Army Medical Center.

Thomas William Mattingly (1907–); M.D., Georgetown Medical School, 1930.

Brigadier General, U. S. Army.

Consultant during heart attack.

Byron Edward Pollock (1910–); M.D., Tulane University, 1936.

Chief Cardiology Service, Fitzsimons Army Hospital, Denver.

Consultant during heart episode. Colonel, U. S. Army.

George M. Powell (1906–); M.D., Washington University, 1932.

In attendance at Fitzsimons Army Hospital, Denver. Colonel, U. S. Army.

Isador Ravdin (1894–); M.D., University of Pennsylvania, 1918.

Consultant during ileitis incident.

John A. Sheedy (1920–); M.D., St. Louis University, 1945.

In attendance at Fitzsimons Army Hospital, Denver. Lt. Col., U. S. Army.

Paul Dudley White (1886–); M.D., Harvard University, 1911.

Consultant on heart problems.

JOHN F. KENNEDY (1917-)

35th President, 1961-

PHYSICIANS TO PRESIDENT KENNEDY

Janet Graeme Travell (1901-); M.D., Cornell University Medical College, 1926.

Appointed Personal Physician to the President of the United States, January 1961. The first woman to be appointed to the position.

George Gregory Burkley (1902-); M.D., University of Pittsburgh School of Medicine, 1928.

Captain, U. S. Navy. Assistant Physician to the President.

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The Survey and After

BY JANET DOE

*Library Consultant
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DURING the years the old Army Medical Library had passed through alternate cycles of nurture and starvation and, as its centennial year approached, the Library was once again in the latter phase, accentuated by the depression economy. During 1933-35 scarcely half the budget asked for was received; current periodicals dropped from 2,041 to 1,600 and only 16 books were bought. The institution was understaffed and still functioning under the primitive organization which tradition had bequeathed it. Yet even then, at the celebration of its one-hundredth anniversary in 1936, it was being acclaimed as "the greatest collection of medical literature in existence."

Unease was stirring, however. The newly appointed Librarian, Colonel Harold Wellington Jones, realized that the Library's affairs were out of joint; he began reorganization, secured some increases in funds, and added a few professional librarians to the staff. He realized, too, that a permanent cure for the Library's ailments could come only from thorough diagnosis followed by sustained and intelligent treatment. At the suggestion of the newly appointed Chief of the Circulation and Reference Division, Helen Norris (now Mrs. Balduin Lucké), who was abetted by Dr. Archibald Malloch, Librarian of the New York Academy of Medicine, in sounding out support from the Rockefeller Foundation, Colonel Jones initiated the survey of the Library carried out in 1943, the report of which was published in 1944. From this prescription he and his successors have pursued a careful and successful course of therapy.

The Survey, sponsored by the American Library Association and financed by the Rockefeller Foundation, was carried out by a committee of three general librarians, Keyes D. Metcalf, in charge, L. Quincy Mumford, and Andrew D. Osborn, together with three medical librarians, Mary Louise Marshall, Janet Doe, and Thomas P. Fleming. Each was made responsible for the investigation of one or more aspects of the Library's situation, in order that the whole might be covered with the necessary detail. The Committee began with an introductory visit to all departments to get acquainted with the staff, the building, and the general routine. Thereafter, each was on his own, spending as much time as was needed for his particular assignment.

The primary requisite, of course, was to delineate the Library's condition in order to ascertain what was wrong. To do this, the main facets had to be carefully examined; these were the physical plant, the organization, the collections, cataloging, the *Index-Catalogue*, readers' services, the historical section in Cleveland, and relations with other libraries. Each investigator made protracted visits, sometimes of several weeks, to the departments with which he was concerned. He sat with the chief and his assistants while they performed their daily routines, following each process from beginning to end. Comparisons were made with the accomplishments of similar libraries; holdings were measured by the yardstick of others' collections or of the total possible and desirable; advantages or shortcomings of tools and procedures were noted; qualifications of staff members passed under review; questionable holdings, methods, and services were criticized. No aspect of importance was overlooked. Following several weeks of such individual study, the Committee met a number of times to hear and discuss the members' reports. Out of these conferences came the final report with its recommendations.

A considered view of the overall picture was both encouraging and distressing. Here was found probably the world's greatest assemblage of medical literature published before 1920, and here, working with it, was a corps of predominantly clerical staff members devoted to their particular divisions and giving sustained effort beyond the call of duty. Yet the Library was falling farther and farther behind in meeting its responsibilities. It was the Committee's task to find out why.

A basic difficulty concerned personnel. The directing head, a medical officer without library training or experience, was superseded about every four years, just when he might have gained some insight into the Library's problems. The internal organization of the Library had been extremely loose, the work being done by a few devoted and indefatigable staff members (five of them served thirty to forty years each between 1865 and 1932) who, with the clerical help of Army enlisted men, worked at their separate tasks without relation to others and without noticeable central supervision. Departmentalization only began to be put into operation tentatively in 1942. After that, friction between some departments seriously impaired the work. Of the four divisions in the Library at Washington at the time of the Survey, only one was directed by a trained librarian.

Lack of funds had resulted in holdings that were far below expectations. Well off in publications before 1920, the Library's later ones were astonishingly sparse, and since much of the value of a medical collection lies in its being up-to-date, the absence of so much recent material was a vital defect. The Library had in fact lost its position of pre-eminence, and other large libraries were being turned to for medical publications.

Techniques employed in the Library were woefully antiquated. It had no usable card catalog, but relied on the *Index-Catalogue*. The latter was incomplete because current material had not been acquired, and publication was distressingly delayed. There was no shelf list, either of books or periodicals; actually, the Library did not know what it had. The classification was so broad as to be practically nonexistent, and the confusion on the shelves resulting from this and from the absence of adequate book-marking was horrifying. Small wonder that the Reference Division had to spend two-thirds of its time searching for books.

That, of course, left only a third of the time of the Reference staff for professional work. And part of this time had to go into reorganization of the stacks in the effort to make books and journals accessible and thus reduce the tremendous waste of time spent in searching. Actual reference service formed only a fraction of this Division's activities.

A photoduplication service was increasing the use of the collection. Since 1937 Medicofilm Service had been made possible through Dr. Ather-ton Seidell's generosity. Demands arising from the war swelled its output, and in 1942 the Library established its own Photoduplication Service, deciding in January 1943 to supply microfilms free in lieu of lending books. The pages filmed rocketed in the last six months of 1943, tripling those for the first half of the year. There were bad delays in the work, however, due to the frustrating need to search for misplaced volumes and to the inadequate electrical wiring which kept half of the equipment idle.

The insufficient electrical facilities were symptomatic of the state of the Library building. Completed in 1887, the structure had long fallen short of functional adequacy. By 1917 it was termed "obsolete, crowded, and non-fireproof," and adequate housing was requested. The postwar dearth of funds set in, however, and nothing was done. By 1943 conditions were deplorable. Dirt and lack of air conditioning had damaged bindings and paper, often irreparably; the absence of elevators precluded the use of book trucks from floor to floor; telephone and lighting facilities were especially bad, and at night readers could not see to read. The lunch room and rest rooms were a disgrace. The stacks, utterly inadequate, were crowded, as was every corner where shelves could be installed; in heavy rains, water leaking from roof and gutters had to be caught in pails or kept off the books by tarpaulins; thousands of volumes, including statistics, documents, and rare books, were moved to Cleveland to make space in Washington. The plant was unsatisfactory in every way.

What was the function of this institution, the Army Medical Library? Originally just an office through which books were procured for the various army posts, it had changed its character completely under the spur of the Civil War, the vision of Billings, and the sudden reception of generous

funds. No longer was it just a working collection; it became a library of the world's medical literature. By 1920 it had accumulated most of the important medical publications; it had published monumental indexes to it, both current and cumulated; and it was providing the materials of research to all medical workers who asked for them. Now, in 1943, its mission was still the same but it lacked the means of accomplishment. Without proper financial support it could not keep up with the increasing flood of publications; without trained library staff it could not organize and service its huge collection by modern library methods. It was in effect trying to carry on simultaneously a gigantic indexing job and the administration of a great reference library, and to do both with insufficient funds and lack of understanding from some of those in authority over it. As the Survey report put it, "The Library is still traveling on the momentum provided by Dr. Billings, and that momentum is getting weak."

These were the conditions the surveyors uncovered. What did they recommend? Basic to all else was the provision of properly qualified staff members. The army officer in charge who, under military regulations would usually serve a few years only, should become Director of the Library, primarily responsible for its contacts with the Surgeon General's Office, government departments, other libraries, and library associations. The Librarian should be a civilian career librarian who could supply the continuity in administration so badly needed. The professional staff should be built up in quality and in number.

The Library's work should be organized into departments, starting with those already begun and establishing others: the Acquisition, Administrative, Catalog, *Index-Catalogue*, Rare Book, and Reference and Circulation Divisions. The Acquisition Division should systematically attempt to acquire all medical publications in all languages. Material in related fields should be present in selective or strong collections according to its availability in other Washington libraries. Material outside medical and related fields should be transferred to more suitable libraries. Gifts and exchanges should be energetically encouraged.

A Catalog Division should be instituted apart from the *Index-Catalogue* Division. Its function would be "to catalog and classify the collections of the Library, and to recatalog and reclassify them when necessary; to index all appropriate material; to determine items to be indexed; to furnish copy to the Editor of the *Index-Catalogue*; to file and maintain card catalogs throughout the Library; to create and maintain the shelf list; to take inventory" and to maintain binding records. The Library's existing card catalog was found so unsatisfactory as to justify scrapping it and starting a new one. A new classification suitable for a large medical collection was to be developed.

It is obvious from the foregoing that the *Index-Catalogue* Division was to be divested of its cataloging activities and to become solely "an editorial office for the preparation and publication of the *Index-Catalogue*." Its functions eventually would be strictly limited to seeing through the press the material furnished by the Catalog Division. The latter, in its indexing, should see to it that enough subject headings were used for full coverage, that a standard list of headings was compiled, that adequate cross references were provided. The Library should make every effort to procure all vital medical publications in order that the *Index-Catalogue* should be as complete as possible. Further, the Library should keep in mind the desirability of reducing the overlapping of indexing services carried on by the *Index-Catalogue*, the *Quarterly Cumulative Index Medicus*, and the *Current List of Medical Literature*.

The Reference and Circulation Division's services to the public, when the Survey started, had improved as far as they could until the other divisions established themselves on a firm modern basis. As the stacks were put in order and material properly cataloged, as books and journals were received more promptly and in greater numbers, more could be done for readers and done more quickly. It was recommended that the reference and research work and translating, formerly done by the *Index-Catalogue* Division, should be taken over by the Reference Division. The latter should be relieved of its previous classification and shelf-listing functions by the Catalog Division.

The Library's rare books, an unusually strong collection in many respects, which had been sent to Cleveland for safekeeping in temporary quarters, needed a great deal of attention. Their condition, often deplorable, should be cared for by slip covers, rebinding, or simple cleaning and oiling. A complete shelf list of them should be made; the holdings were still often undeterminable. Studies should be carried on to discover gaps in the collection and a systematic and continued effort made to fill them. The Library's books on the history of medicine and its early bibliography could well be added to the rare books to form the new Rare Book Division.

Plans for a new building located next to the Library of Congress Annex had already been drawn. Half of it was to be occupied by the Army Medical Museum. The Survey Committee recommended close connections for the Library—by tunnel, tube, and conveyor—with the Library of Congress Annex, the elimination of the monumental staircase envisaged in the plan, an increase in the size of reading rooms, and a more convenient arrangement of quarters for the various divisions.

In the 16 years since the Survey, how far has the Library come towards meeting these recommendations? A very long way indeed!

The Survey put adequate personnel high in its recommendations. Of the 58 positions in the Library at Washington in 1943, predominantly clerical and subprofessional, only 11 were classed as professional. In 1960 the Washington staff numbered 209 and 40 per cent of the positions were classed as professional. The acquiring of a staff of this size and caliber was begun almost immediately; by 1949, 229 positions had been authorized. To provide a fully qualified director, the prospective permanent incumbent was given a year's library school course, so that the Library's head would hold both medical and library degrees. He is actually director-librarian, combining the functions of director and career-librarian which the Survey had suggested. Instead of a general assistant librarian, he has a corps of well qualified division chiefs who carry executive responsibilities for their special departments as well as staff responsibilities across the board.

Implicit in the Survey's recommendation that the Director should be responsible for the outside contacts of the Library was the basic idea that it should *have* outside contacts. Up to this time there had been little or no intercourse between this Library and other libraries. Individuals outside the Army Medical Library with whom the Librarian dealt seem to have been chiefly medical officers and physicians. Representatives from the Library seldom attended meetings of the Medical Library Association, although the Librarian attended occasionally after the threatened stoppage of the *Index-Catalogue* in 1925 brought him into communication with other medical librarians through their pleas for its continuance. The Library had been suspiciously like an ivory tower.

How different it is now! Aloof no longer, its staff has become probably more active in extramural endeavors than that of most libraries. Members attend Medical Library Association meetings regularly, often playing active roles. The Library was host to the Medical Library Association for its 1954 meeting in Washington, and will be again in 1963. Its staff takes part in the activities of other library groups, special, general, and international. The Director makes many addresses before scientific as well as library organizations, as do his division chiefs, also. He has been called upon for surveys of civilian medical libraries in Korea; of libraries in Army Medical Service field installations; of the World Health Organization Library in Geneva; and of the United States Commerce Department Library.

The staff's present quality and stability was brought about only by long and arduous recruitment and training, for there was a chronic shortage of suitable librarians. In-service training was instituted in 1951 and has been systematically pursued. In 1960 the Library's fourth cycle of intern-

ships is proceeding. Supervised experience under qualified instructors in this great institution marks an advance in medical library education not foreseen by the Survey Committee.

The organization of the Library into departments had begun before the Survey, and by the end of 1945 all of the recommended major divisions were in operation. Subsections, transfers, and consolidations have been tried through the years in the effort for greater efficiency, with the evolution in 1960 of the present divisions: Technical Services, Circulation, Reference, Index, and History of Medicine.

In the process of reorganization a fresh liaison with the nationwide clientele of the Library has been developed, too. At the time of the Survey a large body of Honorary Consultants had existed for a few years. In 1952 this was replaced by a small Advisory Group made up of representatives of the medical services of the Armed Forces, the medical profession, and medical libraries. Upon the creation of the National Library of Medicine in 1956, this group was dissolved and reconstituted as a Board of Regents, appointed by the President of the United States. The Board shares the Library's problems and rejoices in its successes, while the Library benefits from the advice and understanding of these representatives of its users. The medical workers of this country thus come to have a direct connection with their national library and a voice in its affairs.

The achievements in the areas of divisional responsibilities may be briefly noted. In the acquisition area, whereas about 1,100 periodical titles were being received in 1943, some 6,000 titles were received in 1960. In cataloging, from 1947 to 1960 there were 151,000 titles cataloged and 112,000 recataloged; the annual published *Catalog*, with its quinquennial cumulations, made its appearance. In reference, all performance statistics have shown an almost unbroken upward march, and basic bibliographic guides of the utmost value have been published. In the history of medicine area, 10,000 rare volumes have been repaired, restored, and rebound; the *Catalogue of Incunabula and Manuscripts* has been published; thorough cataloging of the early literature has been undertaken. In indexing, the final volumes of the *Index-Catalogue* are in press, and the American Medical Association's *Quarterly Cumulative Index Medicus* and the National Library of Medicine's *Current List of Medical Literature* have been integrated into the new *Index Medicus* and *Cumulated Index Medicus*.

The Survey Committee's dictum, "A new building is an absolute necessity," had been stated in various strong terms from 1917 on. After many vicissitudes, and eventually the passing of the National Library of Medicine Act in 1956, with transfer of the Library to the stewardship of the Public Health Service in the Department of Health, Education, and Welfare, the

building so sorely needed is under construction in the Washington suburb of Bethesda, Maryland, and will be ready for occupancy in 1961, marking the Library's one hundred and twenty-fifth anniversary.

The Library has attained greatness not only by virtue of its possessions but as much or more by forward-looking services based on those possessions. As a first-class library, it has gathered the most nearly complete collection of medical literature anywhere in the world, and has made the contents of this collection accessible to any reader anywhere. But it has gone far beyond these primary obligations. Its indexing services form the backbone of current medical bibliography on which the work of present and future researchers will be founded. The indexing, the extensive bibliographical aids the Library has compiled to the older literature and to library techniques, its continual probing into better mechanical methods, its encouragement of historical studies, its endeavors in graduate library education, all this is the extra five talents that have been produced from the five talents it received. In 16 years it has rehabilitated itself and produced a magnificent abundance of services. The Surgeon General's Library has come through its cycles of poverty and plenty to emerge at long last, in name as in deed, truly the National Library of Medicine.

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6. BRODMAN, E., MACDONALD, M. R., AND ROGERS, F. B. The National Medical Library; the survey and ten years' progress. BULLETIN 42: 439-446, Oct. 1954.
7. LAZEROW, S. The National Medical Library; acquisition program. BULLETIN 42: 447-453, Oct. 1954.
8. SCHULLIAN, D. M. AND ROGERS, F. B. The National Library of Medicine. Lib. Quart. 28: 1-17; 95-121, 1958.
9. WILSON, W. J. Early plans for a national medical library. BULLETIN 42: 426-434, Oct. 1954.

Reminiscences

BY MARY LOUISE MARSHALL, *Librarian Emerita*

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A PRIZED compensation of increasing age is the wealth of memories accumulated through the years, and when the period of one's professional service covers forty years of association with medical libraries and librarians, these memories are rich indeed. Another compensation is the privilege of personal allusion, and under this license I will recount some of my recollections of and associations with the greatest of medical libraries, now known to us as the National Library of Medicine.

I came to medical library work in November 1920, following library school and six years of experience, but with no knowledge whatever of medicine or the medical library field. Library school had included only one lecture on reference books in medicine. I had never seen the *Index-Catalogue*, the *Index Medicus*, nor the *Quarterly Cumulative Index* until I took charge of the Orleans Parish Medical Society Library, a collection of some six thousand volumes requiring complete reorganization. Realization of my temerity, in view of my complete lack of subject background, was immediate, but kindly explanation and instruction by my physician patrons, then and through the years, have been one of the happiest of my memories. It was from these physicians that I heard of the Surgeon General's Library, of which they always spoke with awesome pride. They knew little of the Library's administration or its increasing problems, but they knew the collection as the largest in the country; they knew that volumes might be borrowed from it; and they wrote many letters to Congressmen asking for increased support for the Library. In those early days little reference help from our library would have been possible without the privilege of loans from the Surgeon General's Library; as a borrower I came to know this service well.

I recall just one occasion when a book which we had borrowed was reported lost. My complete dismay can be imagined, for it was a rare Russian bound journal. According to the Library's policy we were asked to replace the volume rather than pay for it. For several months I corresponded frantically but unsuccessfully with dealers. I remember vividly my happiness and relief when the lost book was found.

Many physicians who came to our library knew the *Index-Catalogue*

only by name. It stood on the shelves unopened until I undertook for myself an investigation of its resources and its use. The same was true of the *Index Medicus* to a lesser extent. Because of its dictionary arrangement the doctors did use the *Quarterly Cumulative Index*, of which in those early days only several volumes were available. In the last index, coverage of the literature was limited, but most of the journals in our small collection were included. I soon learned, however, that with limited resources such as ours intensive use had to be made of all material available.

My first visit to the Surgeon General's Library, by that time called the Army Medical Library, was on the occasion of the meeting of the Medical Library Association in Washington in 1927. The MLA convention had not been invited by the Army Medical Library and no arrangements had been made for it there, although some sessions were held in Library Hall. Washington was a very crowded city because the American Medical Association was meeting there at the same time. Functions of the AMA program were so distracting that no convention of MLA has since been held concurrently with it.

I shall never forget entering Library Hall, where I was greeted by Miss Noyes and introduced in turn to Mr. Ballard, Mr. Frankenberger, Miss Lawrence, Mrs. Hibbard, Mr. Robert, Miss Darrach, Miss Tye, and Dr. Garrison. The vaulted room with its tiered floors of loaded book shelves and the portraits of medical notables created a picture I shall always remember. A small photograph now in the Library shows the Reading Room as it was then, but it fails to convey the atmosphere and to capture one's impression on seeing it for the first time. Even the "library smell" of old books and bindings added to the suggestion of bibliographic research. It was during this meeting that the portrait of Dr. Garrison was unveiled.

In 1936 Colonel Harold W. Jones became the Librarian of the Army Medical Library. Beginning in 1913 Army officers were allowed duty in Washington for limited periods only, but owing to the onset of the war Colonel Jones remained in the position of Librarian until his retirement in 1945. He was interested and active in the Medical Library Association from the time of his appointment, and served as its President for the years 1939-41. Colonel Jones had instituted some reorganization in the Library and had added some professionally trained librarians to the staff, including Helen Norris (now Mrs. Balduin Lucké). It was she who suggested to him that funds be sought from the Rockefeller Foundation for making a survey of the Library. A grant was given, and the American Library Association was asked to appoint a committee to conduct the survey. In the summer of 1943 Carl Milam, Executive Secretary of the American Library Association, wrote to me as President of the Medical Library Association (I succeeded Colonel Jones and served until 1946) telling of

the proposed project, and suggesting candidates for appointment to the Survey Committee. It seemed to me that at least several of those appointed should have some knowledge of and experience in a medical library, but as I studied the list I noted the name of only one such person; in addition, all the librarians named were men. Consequently, in replying I commented on the dearth of medical library experience in the background of those suggested, and noted for Mr. Milam the names of ten persons possessing special subject qualification, giving the record of experience for each. I commented also on the fact that he had suggested men only, although many outstanding librarians in the medical field were women. Needless to say, my own name did not appear on the list sent to Mr. Milam, but almost immediately I received a letter asking me to serve on the Survey Committee. It has been a source of pride to me that the name of Janet Doe headed the list of qualified persons which I sent to Mr. Milam. Miss Doe served on the Survey Committee and has written of its findings. I shall say only that working with this Committee on this task, so important to all medical libraries and to physicians, was for me the most outstanding and professionally profitable experience of a long career in librarianship.

I had been associated with the Army Medical Library on a small and informal temporary committee of advisors in 1943. Early in 1944 there was formed a group of Honorary Consultants to the Army Medical Library, numbering about eighty. Appointments were made by the Surgeon General and included specialists in the several branches of medicine and related sciences. Only two women were in the original body: Dr. Margaret Craig-hill, former Dean of the Woman's Medical College of Philadelphia and at that time in charge of the Medical Services of the Women's Army Corps, and myself. The Honorary Consultants met once each year to hear reports concerning the Library and to offer suggestions. It was thought that the subject knowledge of these specialists would be useful in evaluating book holdings in respective subject fields, but I know of only one instance where this idea was carried out. The group of Honorary Consultants to the Army Medical Library was dissolved in 1952 when the AML became the Armed Forces Medical Library.

One of the recommendations of the Survey, published in 1944, had been that a classification scheme be developed, custom-built to fit the needs of the Army Medical Library. I was asked to prepare this classification, of which the Preliminary Edition appeared in 1948. The tables were developed with the active co-operation of specialists in the fields of medicine and its basic sciences and with the aid of a Classification Committee composed of four members of the Survey Committee and two representatives from the Library of Congress, because the new scheme was to be correlated with the Library of Congress system. Many of the original plans for the Library's

organization have been revised since that time, and Editions 1 and 2 of the *Classification* have shown consequent marked deviation from the original scheme.

In connection with the development of the Classification many trips to Washington were necessary, and in 1947 I was named by the Surgeon General as Expert Consultant for the Army Medical Library, continuing in this appointment until 1956 when the Library was transferred to the Department of Health, Education, and Welfare. These frequent visits presented an unequaled opportunity to observe the progress of the Library's phenomenal reorganization. It has been an inspirational experience.

After the dissolution of the group of Honorary Consultants a small Advisory Group was formed which worked much more closely with the Library's administration. Miss Doe was a member of the first Advisory Group, and on the expiration of her term I was appointed by the Surgeon General to succeed her, serving in 1955-56 until the transfer of the Library from the Armed Forces.

I had expected that this would be the end of my official connection with the Library. Imagine my surprise, therefore, to receive a letter from the White House in September 1956 asking if I would be willing to serve as a member of the Board of Regents of the newly renamed National Library of Medicine, by Presidential appointment. Consideration of my name for this appointment was accompanied by investigation by the FBI, whose representative interviewed my associates at the Medical School, authorities of the University, and my neighbors, arousing much interest as to what I could possibly have been doing to make such formalities necessary.

Original appointments to the Board of Regents were for staggered terms; mine was for two years. Ex officio members of the Board included the Surgeons General of the Army, Navy, and Air Force, and Public Health Service; the Chief Medical Director of the Veterans Administration; the Assistant Director for Biological Sciences of the National Science Foundation, and the Librarian of Congress. The Presidential appointees represented the specialties of medicine, dentistry, public health, medical librarianship, and other fields of interest. On this first Board I was the only woman and the only medical librarian; my responsibility weighed heavily upon me. My long association with the Library and consequent knowledge of the background of many of its problems stood me in good stead. Attendance at the meetings of the Board was a memorable experience, and the large engraved certificate of appointment signed by President Eisenhower and Secretary of State Dulles is a prized possession.

One interesting experience having to do with the National Library of Medicine followed the Los Angeles meeting of the Medical Library As-

sociation in 1956. In connection with a choice of a location for the new building the proposal had been made that the Library be moved to the Midwest, and delegates from Chicago had presented their appeal to a Congressional Committee conducting a hearing on it during the week of the MLA meeting. I was asked to fly to Washington at the close of the meeting to appear as a witness before the Committee in support of the Washington location. The hearing was conducted in a Committee Room in the Capitol; about fifteen Congressmen were seated around an enormous oval table with about the same number of witnesses ranged along the walls. We had been advised to have in writing what we wished to say, because official reporters for the hearing would accept testimony as written if in this form, but otherwise would report verbatim the extemporaneous speeches. One member of the Committee was from Louisiana. I am sure his pleased surprise in learning that one of the witnesses was from his own state helped to strengthen his conviction in support of our cause.

Twice I have had the opportunity to gauge the reputation of our National Library of Medicine abroad. The first was when I attended the First International Congress on Medical Librarianship in London in 1953. In this gathering of over three hundred representatives from more than thirty countries it warmed one's heart to hear the appreciation expressed for our Library and its outstanding and unique bibliographic achievements, the *Index-Catalogue* and the *Current List of Medical Literature*.

The second library visit abroad was to Colombia in 1959. Here I found that Colombian physicians make extensive use of the National Library of Medicine through its photoduplication service and especially through its indexing publications. Most Colombian physicians who had studied or traveled in the United States had found time to visit the National Library of Medicine. From Colombia, as from the United States, letters expressing need for service have received prompt and interested attention and response.

My most recent visit to Washington was in June 1959, on the occasion of the ground-breaking exercises for the long-awaited new building, first evidence of a dream's final realization. Materialization of this building will complete for me some forty years of use of the Library and increasingly close association with its problems and achievements. While never actually a member of its staff family, I have for almost twenty years been a sort of fond "in-law" relation to it. If I could believe that through the years I have had some small part in the Library's development, it would make me very happy. From my own point of view, association with this Library, its staff, and its supporters has been a constant source of personal and professional satisfaction. The next twenty years will show even greater advances in the Library's development. I hope I shall be here to see them!

Medical Dictionaries and Studies of Terminology

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IN THE four years since the publication of the *Handbook of Medical Library Practice* many new medical dictionaries have appeared, especially in the lesser known languages. With the increase in interest in foreign languages, particularly those of Eastern Europe and Asia, and the development of exchange of personnel and information between the English-speaking countries and other nations, it seems timely to supplement the *Handbook* list of medical dictionaries and studies of terminology with recent editions of earlier works and new titles. While the majority of titles in this list are those published since 1955, a few earlier titles acquired by the National Library of Medicine since the publication of the *Handbook* are included.

Titles have been selected from the holdings of the National Library of Medicine and of the Library of Congress. Lists which have been consulted include Eugen Wüster's *Bibliography of Monolingual Scientific and Technical Glossaries*, volume 2, *Miscellaneous Sources*, 1959; L. N. Malclès' *Les sources du travail bibliographique*, volume 3, *Bibliographies spécialisées*, 1958; and Stechert-Hafner's catalog, *The World's Languages*, 1960.

This annotated list includes English and foreign general medical dictionaries, special subject dictionaries, and terminology studies; condensed or slight medical dictionaries have been included if they appear to be of high caliber and will be useful to the medical student, or if they provide terminology in a little known language or neglected field. Encyclopedic dictionaries and dictionaries intended for the layman or for auxiliary health personnel only have generally been omitted.

The arrangement of the entries is alphabetical by language, and includes under each language monolingual and bilingual dictionaries; the latter are cited under the lesser known language with a cross reference from the other language. Since Latin forms the basis for many medical terms and West European languages such as German, French, and Italian are so well known, cross references have not been made in every case for dictionaries in which these languages appear, but an effort has been made to call to the reader's attention the lesser known languages, such as those of the Slavic countries

and the Far East. Dictionaries with sections in three or more languages are listed under Polyglot Dictionaries.

Abbreviations and studies of terminology follow the listing by language. Under each language general medical dictionaries are listed first, followed by special subject dictionaries. Titles in non-Roman alphabets are given in transliterated form with the translated title in brackets.

Appreciation is expressed here to the National Library of Medicine staff members who have graciously given of their time in evaluating various foreign language dictionaries, especially those of the Slavic and Far Eastern languages.

DICTIONARIES

AFRIKAANS

1. MÖNNIG, HERMANN OTTO. *Voorlopige geneeskundige woordelys*. In medewerking met F. Z. van der Merwe [en] J. D. Louw. 3. druk. Pretoria, Suid-Afrikaanse Akademie vir Wetenskap en Kuns, 1956. 256 p.

South African equivalents for English medical (and some nonmedical) terms. Reproduced from typed copy.

ARABIC

See CLAIRVILLE (no. 79)

ARMENIAN

See *Latinsko-russko-armiānskii meditsinskii slovar'* (no. 83)

CHINESE

2. China (People's Republic of China) Ministry of Health. *Chih liao hsüeh ming tz'ü*. [Terminology of Therapeutics. 2d ed.] Peking [1956] 149 p.
Equivalent terms only; Chinese-English and English-Chinese. The same agency also issued the following sections in Chinese-English and English-Chinese: *Tsu chih hsüeh p'i t'ai hsüeh ming tz'ü ho pien* [Glossary of Terms in Histology and Embryology] Peking, 1955. 78 p.; *Yao hsüeh ming tz'ü ho pien* [Glossary of Pharmacological Terms. 2d ed.] Peking [1958] 282 p.; in English-Chinese: *K'ou ch'iang i hsüeh ming tz'ü* [Stomatological Terms] Peking, 1955. 74 p.; *Ping li hsüeh ming tz'ü* [Terminology of Pathology] Peking, 1954. 124 p.; *Wei shêng wu hsüeh ming tz'ü* [Terminology of Microbiology] Peking, 1954. 37 p.; in Russian-Chinese-English and English-Chinese: *Kung kung wei shêng hsüeh ming tz'ü* [Public Health Terms] Peking [1956] 95 p.
3. COUSLAND, PHILIP BRUNELLESCHI. *Kao shih i hsüeh tz'ü hui*. [Cousland's

medical lexicon.] 12th ed. rev. T'ai-peí, Wu chou ch'u pan shê, 1960. 588 p.

Fairly comprehensive English-Chinese dictionary revised to include names of new drugs and current terms in dentistry, hematology, parasitology, and immunology. Chinese terms given in Chinese characters. Includes list of special characters, abbreviations used in prescriptions, tables of weights and measures.

4. JÊN, P'ING. *La hua i hsüeh tz'ü tien* [Latin-Chinese Medical Dictionary. 1st ed.] Shanghai, Hsi-nan-i-hsüeh-shu-shê, 1953. 413, 35 p.

Latin terms followed by equivalents in Chinese characters. Includes medical, pharmaceutical, and anatomical terms, with an appendix of terms used in prescriptions. Intended for medical officials and students.

5. Jên min wei shêng ch'u pan shê, Peking. *I hsüeh ming tz'ü hui pien*. [Dictionary of Medical Terminology] Peking, 1958. 761 p.

English medical and pharmaceutical terms with equivalents in Chinese characters.

See also Polyglot (no. 78-87)

CROATIAN

6. KOSTIĆ, ALEKSANDAR, ed. *Medicinski leksikon za lekare i studente*. Redakcioni odbor: Aleksandar Kostić [and others] Beograd, Medicinska knjiga, 1957. 641 p.

Fairly comprehensive medical dictionary, including basic terms in allied fields. Anatomical terms are based on the Basle nomenclature. Includes eponyms.

CZECH

7. KÁBRT, JAN AND VALACH, VLADISLAV. *Stručný lékařský slovník*. [1 vyd.] Praha, Státní zdravotnické nakl., 1958. 361 p.

An abridged medical dictionary giving about 18,000 terms in one alphabet in Latin, Greek, Czech, English, and French. Non-Czech words have Czech equivalents; Czech terms have Latin equivalents. Intended for students and workers in medical and health fields; includes words commonly used in chemistry, pharmacology.

8. VOLNÁ, GRAŽYNA. *Lékařský slovník polsko-český a česko-polský*. [1 vyd.] Praha, Státní zdravotnické nakl., 1958. 422 p.

Czech-Polish and Polish-Czech dictionary of about 6,000 basic medical terms and 1,500 nonmedical words. Gives equivalent terms only.

Anatomy

9. HERBER, OTTO. *Slovník anatomických jmen* . . . 2. upravené vyd. Praha, Státní zdravotnické nakl., 1955. 207 p.

Part 1 (79 p.), Czech equivalents for Latin, Greek, or other term of origin; part 2, short biographical sketches of famous anatomists; part 3, *Nomina anatomica* (Basle, 1895, and Jena, 1935).

DANISH

10. SECHER, KNUD IVER ASSENS. *Klinisk ordbog*. 5. udg. red. af Martin Kristensen. København, Høst, 1958. 561 p.

Dano-Norwegian dictionary; not quite as comprehensive as standard American medical dictionaries; includes word derivations, abbreviations, eponyms, and identifying biographical information of famous scientists.

Anatomy

11. SØRENSEN, EDWARD CHRISTIAN AND HØEG, L. *Terminologia anatomica; etymologien af de i den makroskopiske og den mikroskopiske anatomi samt i embryologien anvendte termini technici*. København, Busck, 1958. 85 p.

Danish equivalents of Latin and Greek terms.

DUTCH

12. *Codex medicus Neerlandicus*. [2. herz. en uitgebreide ed.] Amsterdam, Elsevier, 1958. 1004 p.

Dutch dictionary similar to Black's in its encyclopedic style; written by specialists with alphabetical arrangement under subjects; includes symptoms and treatment. Contains alphabetical list of drugs and good index.

13. COELHO, MAURICE BERNARD. *Praktisch verklarend zakwoordenboek der geneeskunde* . . . 6. herz. druk door G. Kloosterhuis. Den Haag, Van Goor, 1960. 674 p.

Compact but inclusive dictionary for physicians, pharmacists, medical students, and health workers.

14. HAAN, HENRI RUDOLPH MARI DE AND DEKKER, W. A. L. *Groot woordenboek der geneeskunde; encyclopaedia medica*. Leiden, Stafleu, 1955-1960. 4 v. and cumulative supplement.

Comprehensive medical dictionary, with basic terms in chemistry, physics, and biology. Includes non-Dutch medical terms and for many Dutch terms gives Latin, German, English, French, and other synonyms. Contains abbreviations and brief biographical information. Supplement contains outline of Universal Decimal Classification schedule for medicine and related fields, selection of standard recent titles (international) arranged according to the schedule, and a listing of new terms.

15. PINKHOF, H. *Vertalend en verklarend woordenboek van uitheemse geneeskundige*

termen. 4. verb. en verm. druk bewerkt door G. J. Schoute. Haarlem, Bohn, 1954. 646 p.

Fairly comprehensive dictionary, with short definitions; includes new terms and abbreviations; contains identifying biographical information.

16. SCHUURMANS STEKHOVEN, WILLEM. *Geneeskundig woordenboek: Engels-Nederlands, Nederlands-Engels*. 2. geheel herz. druk. Met medewerking van W. M. Corbet en C. Visser. Amsterdam, De Bussy, 1955. 284 p.

Useful dictionary of equivalent terms; includes list of abbreviations.

ENGLISH

17. *Blakiston's New Gould Medical Dictionary, a Modern Comprehensive Dictionary of the Terms Used in All Branches of Medicine and Allied Sciences, Including Medical Physics and Chemistry, Dentistry, Pharmacy, Nursing, Veterinary Medicine, Zoology and Botany, as well as Medicolegal Terms*; with illustrations and tables. Editors: N. L. Hoerr, Arthur Osol. 2d ed. New York, Blakiston Division, McGraw-Hill, 1956. 1463 p.

One of the standard medical dictionaries, containing many new terms; gives derivations and pronunciation; includes abbreviations, eponyms, brief biographical information, tables of arteries, bones, nerves, enzymes, isotopes, phobias, and similar items. Abridged edition published as *Blakiston's Illustrated Pocket Medical Dictionary*, 2d ed., New York, Blakiston Division, McGraw-Hill, 1960. 985 p.

18. DORLAND, WILLIAM ALEXANDER NEWMAN. *Illustrated Medical Dictionary, including Modern Drugs and Dosage*, by Austin Smith, and *Fundamentals of Medical Etymology*, by L. W. Daly. 23d ed. Philadelphia, Saunders, 1957. 1598 p.

One of the most comprehensive of the standard medical dictionaries; frequently revised; contains terms used in medicine and related sciences, with pronunciations and derivations; gives tables of arteries, muscles, nerves, staining methods, tests, and similar items. Includes abbreviations, eponyms, brief biographical information of persons famous in medicine. Abridged edition published as *Dorland's Pocket Medical Dictionary*, 20th ed., Philadelphia, Saunders, 1959. 698 p.

19. STEDMAN, THOMAS LATHROP. *Medical Dictionary of Words Used in Medicine with Their Derivations and Pronunciation, Including Dental, Veterinary, Chemical, Botanical, and Other Special Terms . . .* 19th rev. ed. with etymologic and orthographic rules; edited by N. B. Taylor in collaboration with A. E. Taylor. Baltimore, Williams & Wilkins, 1957. 1656 p.

Comprehensive standard medical dictionary, first published in 1911 under title *A Practical Medical Dictionary*. Frequently revised; gives etymological word list; includes eponyms, brief biographical information, many useful tables, and some illustrations. Appendix contains ta-

bles of weights and measures and *Nomina anatomica*, revised by the Fifth International Nomenclature Congress of Anatomists, the new *British Anatomical Nomenclature*, with the *Basle Anatomical Nomenclature* equivalents.

20. TABER, CLARENCE WILBUR. *Cyclopedic Medical Dictionary, Including a Digest of Medical Subjects: Medicine, Surgery, Nursing, Dietetics, Physical Therapy, Treatments, Drugs*, etc. 8th ed. Philadelphia, Davis, 1960. 1 v. (various pagings)

Standard medical dictionary, frequently revised, with pronunciations, derivations, and definitions; not as comprehensive as Dorland, Gould, and Stedman. Includes synonyms, information on principal diseases, giving diagnosis, symptoms, and treatment. Appendix includes many useful tables: weights and measures, muscles, nerves, veins, arteries, poisons, Latin glossary.

21. THOMSON, WILLIAM ARCHIBALD ROBESON. *Black's Medical Dictionary*. 23d ed. London, Black, 1958. 1012 p.

Formerly edited by Comrie, this standard British dictionary combines dictionary features with those of an abridged encyclopedia; includes a number of rewritten and new sections. Contains notes on causes, symptoms, and treatment of diseases. Not as comprehensive as the standard American medical dictionaries. Published in the United States under the title *The Macmillan Medical Cyclopedia*, New York, 1959 [c1958] 1012 p.

Anatomy

22. ABADIR, FAHIM M. *Etymologica Anatomica; Comprising Anatomical Terms, Their Origin, Derivation, and Meaning*. [1st ed.] Alexandria [Egypt, 1957] 150 p.

Lists terms current in manuals and text books; intended for the student.

23. FIELD, EPHRAIM JOSHUA AND HARRISON, R. J. *Anatomical Terms: Their Origin, and Derivation*. [2d ed.] Cambridge [Eng.] Heffer [1957] 190 p.

Gives some long definitions; includes many eponyms, with brief biographical notes; intended for the student.

Dentistry

24. Academy of Denture Prosthetics. Nomenclature Committee. *Glossary of Prosthodontic Terms*. 1st ed. St. Louis, Journal of Prosthetic Dentistry, 1956. 34 p.

Collection of terms with their special connotations in prosthodontics; choice of term is based on majority opinion.

25. DENTON, GEORGE BION. *The Vocabulary of Dentistry and Oral Science*, a

Manual for the Study of Dental Nomenclature. [Chicago] American Dental Association, 1958. 207 p.

Parts 1-3 discuss foundations of scientific language (including list of combining forms) and nomenclature problems; part 4: selected dental vocabulary with critical notes.

Microbiology

26. JACOBS, MORRIS BORIS [AND OTHERS] *Dictionary of Microbiology*. Princeton, Van Nostrand, [c1957] 276 p.

Defines commonly used terms in microbiology and related fields of bacteriology, mycology, virology, cytology, immunology, and serology. Follows classification of bacteria according to Bergey's *Manual*.

Obstetrics and Gynecology

27. *A Dictionary of Midwifery and Public Health*; ed. by G. B. Carter and G. H. Dodds. London, Faber and Faber [1953] 686 p.

Definitions, with extended discussion of some subjects. Public health section (p. 555-686) concerns British laws and practice.

Ophthalmology

28. *Dictionary of Visual Science* . . . Ed. by Max Schapero [and others. 1st ed.] Philadelphia, Chilton, [c1960] 785 p.

Fairly comprehensive dictionary covering the terminology of the visual sciences, including ocular anatomy, physiology, pathology, histology, physiological optics, orthoptics, and visual training. Gives phonetic pronunciations; abbreviations.

Pharmacology

29. HOCKING, GEORGE MACDONALD. *A Dictionary of Terms in Pharmacognosy and Other Divisions of Economic Botany*. Springfield, Ill., Thomas [c1955] 284 p.

"An arrangement and explanation of terms which relate to crude drugs . . . with briefer mention of other economic plants and animals." Includes Latin, English, and vernacular names; intended for students and practitioners in the health professions, and those in trade and industry.

Psychology and Psychiatry

30. American Psychiatric Association. Committee on Public Information. *A Psychiatric Glossary; the Meaning of Words Most Frequently Used in Psychiatry*. Washington, 1957. 66 p.

Five hundred words and definitions.

31. ENGLISH, HORACE BIDWELL AND ENGLISH, AVA CHAMPNEY. *A Compre-*

hensive Dictionary of Psychological and Psychoanalytical Terms, a Guide to Usage. [1st ed. New York] Longmans, Green [1958] 594 p.

Definitions, with some pronunciations and usage notes; includes abbreviations.

32. HINSIE, LELAND EARL AND CAMPBELL, ROBERT JEAN. *Psychiatric Dictionary*. 3d ed. New York, Oxford University Press, 1960. 788 p.

Comprehensive dictionary revised to include 2,000 new terms and omit 1,300 outmoded terms; gives pronunciations of many words; numerous citations to sources.

Radiology and Nuclear Medicine

33. British Standards Institution. *Glossary of Terms Used in Radiology*. London, 1955. 82 p. (B.S. 2597: 1955).

Short definitions of numbered terms arranged in the following sections: general terms and physics; sources of ionizing radiation; radiography and fluoroscopy; radiotherapy and radiation protection. Index refers to term number.

34. ETTER, LEWIS ELMER. *Glossary of Words and Phrases Used in Radiology and Nuclear Medicine*. Prepared from various sources for medical secretaries, X-ray technicians, medical students, and residents in radiology. With a section on suggested terminology for roentgenological reports . . . Springfield, Ill., Thomas, 1960. 203 p.

Definitions occasionally supported by bibliographic citations; includes abbreviations.

Syndromes

35. DURHAM, ROBERT HARRIS. *Encyclopedia of Medical Syndromes*. [New York] Hoeber [c1960] 628 p.

Gives for each syndrome: clinical manifestations, pathologic findings, etiology, clinical course, and treatment; includes synonyms and one or more citations to the literature.

Veterinary Medicine

36. MILLER, WILLIAM CHRISTOPHER AND WEST, GEOFFREY P., ed. *Black's Veterinary Dictionary*. 3d ed. [Completely rev., enl., and re-set] London, Black [1955] 1112 p.

Inclusive dictionary similar to *Black's Medical Dictionary*; has encyclopedic features; includes symptoms, causes, and treatment of diseases; gives derivations of some terms.

FRENCH

37. GARNIER, MARCEL AND DELAMARE, VALÉRY. *Dictionnaire des termes techniques de médecine contenant les étymologies grecques et latines, les noms*

des maladies, des opérations chirurgicales et obstétricales, des symptômes cliniques, des lésions anatomiques, les termes de laboratoire, etc. 17. éd., rev. et augm. par J. Delamare. Paris, Maloine. 1958. 1301 p.

French dictionary of same type as Dorland but less comprehensive. Spanish edition, with the collaboration of Joaquin Pi y Arsuaga and others, published as *Diccionario de los términos técnicos usados en medicina*, 10. ed. española, Madrid, Bailly-Baillière, 1955. 1422 p.

See also Polyglot (no. 78-87); AOYAGI (no. 62)

Anatomy

38. LOVASY, E. AND VEILLON, E. *Dictionnaire des termes d'anatomie, d'embryologie, et d'histologie*. Paris, Maloine, 1954. 624 p.

Small but inclusive dictionary with short definitions.

39. OLIVIER, GEORGES. *Les nouveaux termes anatomiques; lexique conforme à la nomenclature internationale* (P.N.A.) Paris, Vigot, 1959. 146 p.

French term followed by the international term in Latin, and a free translation in French.

Psychology

- 39a. PIERON, HENRI. *Vocabulaire de la psychologie*. Publié avec la collaboration de l'Association des Travailleurs Scientifiques. 2. éd., rev. et augm. Paris, Presses Universitaires de France, 1957. 468 p.

Definitions include an occasional English synonym. Contains index of names cited; appendix: lists of abbreviations, French and English, symbols used in tests, Greek roots.

GERMAN

40. GFRÖRER, DIETER. *Medizinisches Wörterbuch*. Mit. ca. 18,000 Stichworten. [3. bis 5. Aufl.] Stuttgart, Medica Verlag [1958] 348 p.

Up-to-date and useful dictionary; includes eponyms. Appendix: table of arteries, muscles, nerves.

41. GOULDEN, WILLIAM OWEN. *German-English Medical Dictionary*. London, Churchill, 1955. 513 p.

English equivalents of about 50,000 medical expressions; essential chemical, dental, and veterinary terms included.

42. *Klinisches Wörterbuch*, von Willibald Psychyrembel. Gegründet von Otto Dornblüth. 123.-153. Aufl., mit 1385 Abbildungen im Text. Berlin, Gruyter, 1959. 980 p.

Fairly comprehensive dictionary; special emphasis on recent terms, those of foreign origin, and eponyms. Includes many pharmaceutical terms and brief biographical information.

43. ZETKIN, MAXIM AND SCHALDACH, HERBERT, ed. *Wörterbuch der Medizin*. [1. Aufl.] Berlin, Verlag Volk und Gesundheit, 1956. 1008 p.

Comprehensive dictionary similar to standard American medical dictionaries; contains new medical words, names and chemical composition of drugs. Includes word derivations, eponyms, brief biographical identification of persons famous in medicine. Appendix: Greek etymology.

See also Polyglot (no. 78-87); AOYAGI (no. 62); MATSUMURO (no. 66); RUIZ TORRES (no. 103); SOMMERAU (no. 96)

Biochemistry

44. DYCKERHOFF, HANNS. *Wörterbuch der physiologischen Chemie für Mediziner*. Berlin, Gruyter, 1955. 175 p.

Some long definitions; emphasis on pharmaceutical terms; includes formulas.

Dentistry

45. HOFFMANN-AXTHELM, WALTER, ed. *Zahnärztliches Lexikon*. München, Barth, 1958. 552 p.

Gives word derivations; includes abbreviations.

Neurology

46. MORRELL, ROGER MERRITT, ed. *German-English Glossary of Neurophysiology*. New York, Consultants Bureau, c1958. 181 p.

Includes expressions in neuroanatomy, biochemistry, physiology, neurology, electrical engineering, and electronics; equivalent terms only. Reproduced from typed copy.

Orthopedics

47. OEHLECKER, FRANZ. *Chirurgische Knochen- und Gelenkerkrankungen, zugleich ein Versuch einheitlicher Benennung der Krankheitsbilder*. Berlin, Springer, 1955. 155 p.

Includes definitions and extended explanations.

Pharmacy

48. ARENDS, JOHANNES, ed. *Volkstümliche Namen der Arzneimittel, Drogen, Heilkräuter, und Chemikalien . . .* 14. verm. und verb. Aufl. Berlin, Springer, 1958. 411 p.

Vernacular German names for drugs, pharmaceutical plants, and chemicals, followed by the Latin equivalent.

49. HUNNIUS, CURT. *Pharmazeutisches Wörterbuch*. 3. völlig neu bearb. und erweiterte Aufl. Berlin, Gruyter, 1959. 731 p.

Intended for the practicing pharmacist and the student; predomi-

nantly Latin terms followed by explanation in German; includes some chemical formulas.

Psychology

50. DORSCH, FRIEDRICH, ed. *Psychologisches Wörterbuch*. Unter Mitarbeit von Werner Traxel; mit einem Verzeichnis der Teste und Testautoren und einer Einführung in die mathematische Behandlung psychologischer Probleme von Wilhelm Witte. 6. völlig. revidierte Aufl. Hamburg, Meiner [1959] 488 p.

Inclusive; gives some long definitions and in most cases derivation of word.

Science

51. DE VRIES, LOUIS. *German-English Science Dictionary for Students in Chemistry, Physics, Biology, Agriculture, and Related Sciences*. 3d ed., including supplement of new terms. New York, McGraw-Hill, 1959. 592 p.

Revised to include 3,000 new terms; gives "Suggestions for Translators"; list of abbreviations.

Syndromes

52. LEIBER, BERNFRIED AND OLBRICH, GERTRUD. *Wörterbuch der klinischen Syndrome*. 2. erweiterte und verb. Aufl. München, Urban & Schwarzenberg, 1959. 730 p.

Alphabetical listing of syndromes; for each gives synonyms, definitions, original investigator, symptoms, etiology, differential diagnosis, and citations to the literature. Contains synonym index and extensive symptom index.

GREEK

53. CHRISTOMOPOULOS, GEÖRGIOS D. *Angloellēnikon lexikon iatrikēs horologias*. [English-Greek Dictionary of Medical Terminology] 1. ekd. Athenai [Oikonomidēs] 1954. 300 p.

Greek equivalents of 20,000 English terms in medicine and related fields; includes list of abbreviations, tables of weights and measures and conversion formulas, components of medical preparations, lists of muscles, nerves, and arteries.

54. TSOUKAS, ANDREAS G. AND PSALTĒS, I. A. *Mega angloellēnikon iatrikon lexikon*. [Large English-Greek Medical Dictionary] 2. ed. Athenai, Parisianos, 1957. 3 v.

Comprehensive dictionary patterned after standard English and French medical dictionaries; English terms followed by equivalents and definitions in Greek; includes abbreviations, brief biographical information, eponyms; supplement of new words.

HEBREW

55. Academy of the Hebrew Language, Jerusalem. *Dictionary of Anatomical Terms, Hebrew-Latin*. Jerusalem, 1957. 304, 53 p. (Its Specialized Dictionaries, 4).

Alternate columns of Hebrew and Latin terms arranged by body part; Hebrew and Latin indexes.

HUNGARIAN

56. DONÁTH, TIBOR AND PALKOVICH, IMRE. *Anatómiai nevek magyarázata* 2. jav., bőv. kiad. Budapest, Művelt Nép, 1955. 180 p.

Hungarian equivalents of Latin and Greek terms (some of the main entries are foreign terms in Hungarian form); supplement: brief biographical sketches of famous anatomists.

- 56a. VÉGHELYI, PÉTER AND ERNŐ, SZILY, ed. *Német—magyar orvosi szótár. Medizinisches Wörterbuch deutschungarisch*. Budapest, Terra, 1960. 752 p.

Useful German-Hungarian dictionary of about 25,000 terms in medicine and related fields; chiefly equivalent terms.

INDONESIAN

57. RAMALI, AHMAD AND PAMOENTJAK, K. S. *Kamus kedokteran arti dan keterangan istilah*. Djakarta, Kjabatan [1953] 327 p.

Indonesian medical dictionary; terms are given in Indonesian, Latin, or language of origin, with equivalent word or short definition in Indonesian.

ITALIAN

58. FERRO, LUIGI. *Terminologia medica*. 3. ed. con appendice di aggiornamento. [Torino] Unione tipografico-editrice torinese [1950] 884 p.

Comprehensive dictionary similar to standard American medical dictionaries. Gives some word derivations; includes eponyms. Appendix of new terms.

59. MARCONI, RUGGERO AND ZINO, ELENA, ed. *Dizionario inglese-italiano per le scienze mediche*. 2. ed. Torino, Minerva medica, 1958. 564 p.

Gives Italian equivalents for 40,000 English terms in medicine and pharmacology.

60. MARCOVECCHIO, ENRICO. *Dizionario tedesco-italiano per le scienze mediche* . . . [Torino] Minerva medica [1954] 549 p.

Medical-biological dictionary of approximately 55,000 German terms with Italian equivalents; includes new words appearing in the literature; contains list of technical-scientific abbreviations, general abbreviations, and terms used in prescriptions.

61. SEGATORE, LUIGI. *Dizionario medico, scientifico-divulgativo*. Con la colla-

borazione di Gian Angelo Poli. 2. ed., riv. e aggiornata. Novara, Istituto geografico de Agostini [1958] 1263 p.

Dictionary of medical terms in common use; not as comprehensive as standard American dictionaries. Has features of an abridged encyclopedia. Includes eponyms; illustrations.

See also Polyglot (no. 78-87)

JAPANESE

62. AOYAGI, YASUMASA, ed. *Wa-Ra-Ei-Doku-Futsu taishō igaku dai jiten*. [Japanese-Latin-English-German-French Medical Terminology, ed. by Yasumasa Aoyagi and others. 1st ed.] Tokyo, Kanehara, 1957. 1259 p.

Comprehensive dictionary including many eponyms. Transliterated Japanese term followed by Japanese characters and equivalent term in one or more other languages; definitions in Japanese characters; includes identifying biographical information.

63. KAKETA, KATSUMI, UCHIZONO, KōJI AND WATANABE, TOSHITAKE. *Shin Ei-Wa igaku jiten. New Medical Dictionary: English-Japanese*. Tokyo, Igaku-Shoin, 1958. 1018 p.

Comprehensive dictionary of approximately 30,000 terms in medicine and such related fields as pharmacology and dentistry; patterned after Dorland and Gould. Japanese equivalent or definition (in Japanese characters) follows English term; includes eponyms, identifying biographical information of famous persons. Appendix contains list of abbreviations, tables of atomic weights and of radioisotopes.

64. KATō, KATSUJI, ed. *Igaku Ei-Wa dai jiten. Integrated English-Japanese Medical Dictionary*. [Tokyo, Nanzando, 1960.] 1718 p.

Comprehensive dictionary of 150,000 terms; contains new terms in the fields of medicine and nuclear physics, radiation and space medicine; includes eponyms, abbreviations, identifying biographical information. Definitions in Japanese characters. Thin paper edition (identical paging) in flexible binding priced at 2,700 yen; large edition costs 4,800 yen.

65. ISHIKAWA, MITSUTERU, ed. *Ei-Wa-igo dai jiten*. [English-Japanese Medical Dictionary. 1st ed.] Osaka, Nippon Rinshōsha, 1955. 1350 p.

Comprehensive dictionary patterned after the 22d edition of Dorland. Gives equivalent terms and definitions in Japanese characters. Includes abbreviations, eponyms, with brief biographical information, tables of muscles, nerves, arteries, and veins; some anatomical illustrations.

66. MATSUMURO, SHIGEYUKI, ed. *Igaku Doitsugo shō jiten, Doku-Nichi, Nichi Doku*. [Small German Medical Dictionary, German-Japanese, Japanese-German. 1st ed.] Tokyo, Daigaku Shorin, 1959. 293 p.

Dictionary of basic medical terms with emphasis on derivation and

pronunciation. Words derived from Latin and non-German words given in the language of origin. Part 1 gives German or other term followed by Japanese equivalent in characters, with occasional elaboration in German or Latin; part 2 gives Japanese term, in transliterated form and in characters, followed by German term.

67. *Nanzando's Medical Dictionary*. Editorial board: T. Ogawa [and others] 1st ed. Tokyo, 1954. 1353 p.

Comprehensive dictionary in Japanese similar to standard American medical dictionaries. Japanese terms are followed by equivalents in English, Latin, German, or other language, with definition in Japanese characters. Includes brief biographical information, eponyms, pharmacology. Extensive index section consisting of medical terms (predominantly English) alphabetically arranged with page references to text proper.

68. WATANABE, YOSHITAKA. *Shōkōmei jiten*. [Dictionary of Terms in Symptomatology. 1st ed.] Urawa, Chūgai Isho, 1955. 577 p.

English terms followed by Japanese definitions (in Japanese characters). Contains primarily terms used in diagnosis, eponyms, syndromes, and tests. Extensive Japanese-English index.

Dentistry

69. *Shigaku jiten*. [Dictionary of Dental Science. Supervisory editor: Masaru Nagao; editor-in-chief: Rinzō Higaki. 1st ed.] Tokyo, Nagasue, 1958. 1017 p.

Comprehensive dictionary of terms in Japanese characters followed by synonym in English or German or both, or Latin; definitions in Japanese characters. Indexes in Japanese, Latin, English, and German.

Radiology

70. TAKIUCHI, SEIJIRO, ed. *Hōshasen shō jiten*. [Radiological Dictionary] Tokyo, Kimpōdō, 1954. 474, 78, 44 p.

Japanese term given in Japanese characters, followed by English and German word; definition in Japanese characters. Substantial index of English and German terms in alternate columns.

KOREAN

71. LEE, W. C. AND CHOI, K. D., ed. *English-Korean Medical Dictionary*. Seoul, Eul-Yoo Pub. Co., 1958. 484 p.

English terms with Korean equivalents in Korean characters. Appendix includes list of abbreviations, with English and Korean meanings, list of medicines with Latin or English names, tables of weights and measures.

LATIN

See Polyglot (no. 78-87)

NORWEGIAN

72. EVANG, KARL, ed. *Norsk medisinsk ordbok*. 4. utg. Oslo, Sem & Stenersen, 1955. 348 p.

Contains about 13,500 terms useful to physicians, medical students, nurses, and other health workers; for each term gives numerical key to international morbidity nomenclature which appears at end of text.

See also SECHER (no. 10)

POLISH

73. HOFMAN, ADAM. *Słownik lekarski polsko-rosyjski*. [Wyd. 1.] Warszawa, Państwowy Zakład Wydawn. Lekarskich, 1959. 476 p.

Russian equivalents of Polish terms; includes eponyms.

74. ——— *Słownik lekarski rosyjsko-polski*. [Wyd. 1.] Warszawa, Państwowy Zakład Wydawn. Lekarskich, 1957. 532 p.

Contains approximately 30,000 terms in medicine and related fields; Polish equivalents of Russian terms; includes eponyms. List of abbreviations used in medicine at end.

75. JĘDRASZKO, SABINA. *Słownik lekarski; angielsko-polski i polskoangielski* [Wyd. 1.] Warszawa, Państwowy Zakład Wydawn. Lekarskich, 1958. 584 p.

Polish equivalents of English terms in medicine, dentistry, and pharmacy, including terms used in "lay-language," with some brief definitions. Includes many new terms. Contains list of abbreviations and list of Latin words and abbreviations used in treatment, tables of weights and measures. Small Polish-English section with equivalents.

See also DEL GUERCIO (no. 80); VOLNA (no. 8)

Anatomy

76. Polskie Towarzystwo Anatomiczne, Warsaw. *Mianownictwo anatomiczne*, pod red. Mieczysława Stelmasiaka. [Wyd. 1.] Warszawa, Państwowy Zakład Wydawn. Lekarskich, 1958. 430 p.

Part 1, Latin-Polish terminology, arranged by body part; part 2, alphabetical arrangement, Polish-Latin; part 3, Latin-Polish. Based on *Nomina anatomica Parisiensia*.

Eponyms

77. FEJGIN, MIECZYŚLAW, ed. *Leksykon zespołów i objawów chorobowych*. Współautorzy: Zbigniew Bochenek [and others. Wyd. 1.] Warszawa, Państwowy Zakład Wydawn. Lekarskich [1959] 253 p.

Dictionary of approximately 2,000 eponyms; origin usually given, Latin name, often with French or English equivalent, and a short explanation in Polish. In most cases the source of information is cited (journal article or book).

POLYGLOT

78. China. General Committee on Scientific Terminology. *La ying tê han tui chao i hsiieh ming tzŭ hui pien. A Latin-English-German-Chinese Medical Terminology*. [Shanghai] 1931. 520 l.

Latin, English, and German columns of medical terms arranged alphabetically by Latin term with Chinese terms (in Chinese characters) on opposite page.

79. CLAIRVILLE, ALEXANDRE LICHTENDORFF. *Dictionnaire polyglotte des termes médicaux*. 2. éd. rev. et augm. Paris, S.I.P.U.C.O., 1953. 1152 p.

Main portion in French includes over 14,000 numbered terms, with English, German, and Latin cited for each. Keys to the other languages refer to French numbered term.

Versión española, por Edwin Velez [y] Antonio Galvan. Paris, S.I.P.U.C.O., 1952. 351 p.

Versão brasileira. Trad. pelo Bernardo Radunski. Paris, S.I.P.U.C.O. e Rio de Janeiro, Freitas Bastos [1953] 351 p.

Versione italiana, del A. Calciati. Paris, S.I.P.U.C.O., 1955. 320 p.

Version arabe, par Munshid Khâtir [and others] Damascus, 1956. 960 p.

Arabic version has alternate columns of French and Arabic terms, and also refers to the number of the term in the original volume.

80. DEL GUERCIO, LOUIS R. M., ed. *The Multilingual Manual for Medical Interpreting*. [New York, Pacific Printing Co., Inc., c1960] 160 p.

Contains sections in French, Spanish, German, Italian, Polish, and Russian of 100 questions usually asked on medical history forms. The question appears first in English followed by the language of the section with phonetic pronunciation of that language. Subject index with reference to number of question.

81. HO, HUAI-TÊ AND T'ÏEN, LI-CHIH. *O ying chung i hsiieh tzŭ hui*. [Russian-English-Chinese Medical Dictionary. 1st ed.] Peiping, Jên-min-wei-shêng-ch'u-pan-shê, 1954. 714 p.

Russian terms followed by equivalents in English and Chinese (in Chinese characters); covers medicine and allied fields including pharmacy; contains section on Russian drug terms; supplement includes list of Russian prefixes and suffixes.

82. KOSTIĆ, ALEKSANDAR. *Medicinski rečnik*. Beograd, Medicinska knjiga, 1956. 762 p.

Contains Latin, English, German, French, and Serbian sections of terms (some nonmedical) with a section of 3,800 eponyms, totaling

41,000 terms in all. Largest section is in Latin, giving origin of word, followed by equivalent term in English, German, French, and Serbian. Other sections, which are shorter, give equivalents in most cases in the other languages. Includes some abbreviations.

83. *Latinsko-russko-armianskiĭ meditsinskiĭ slovar'*. [Latin-Russian-Armenian medical dictionary] Sostavili M. Abeghian [and others] Erevan, Izdatel'stvo an armianskoĭ SSR, 1951. 471 p.

Latin terms alphabetically arranged followed by equivalents in Russian and Armenian; includes basic terms in related fields. Russian and Armenian words are not transliterated.

See also AOYAGI (no. 62); BRAIER (no. 101); CARDENAL PUJALS (no. 102); HAAN (no. 14); KÁBRT (no. 7); NANZANDO (no. 67)

Ophthalmology

84. *Lexicon Ophthalmologicum: Multilingual Ophthalmological Dictionary . . .* Editores: M. E. Alvaro [and others] Basel, Karger, 1959. 223 p.

Main section of 2,192 terms with English word followed by the equivalent in German, Spanish, French, Italian, and Latin; contains sections in each language with numerical reference to numbered term in the English section.

Physical Therapy

85. "Communication with Non-English Speaking Patients." In *The Physical Therapy Review*, v. 39, no. 9, 1959; v. 40, no. 4, 5, and 7, 1960.

Expressions used in instruction and treatment of physical therapy patients. Each issue gives 2 pages of terms in 3 different languages with the English equivalents.

Radiology

86. Deutscher Medizinischer Sprachendienst, München. *Termini radiologici; Deutsch, English, français, español*. München, Urban & Schwarzenberg, 1959. 78 p.

Includes about 1,000 words in each language; four columns to a page.

87. FOSSATI, FRANCO. *Dizionario tecnico di radiologia: italiano, français, deutsch, english, español*. Milano, Wassermann [1952] 489 p.

Part 1: Italian term followed by equivalents in French, German, English, and Spanish; part 2: 4 sections: French-Italian, German-Italian; English-Italian, Spanish-Italian.

PORTUGUESE

88. FORTES, HUGO. *Dicionário de termos médicos: inglês-português*. 2. ed. Rio de Janeiro, Editôra Científica [1958] 702 p.

Portuguese equivalents of English terms in medicine and related fields; English pronunciations indicated.

89. PINTO, PEDRO AUGUSTO. *Dicionário de termos médicos*. 7. ed. Rio [de Janeiro] Editôra Científica, 1958. 507 p.

Short definitions.

See also CLAIRVILLE (no. 79)

Dentistry

90. SCARTEZZINI, CARMELINO. *Dicionário odontológico* (contendo termos de medicina, farmácia, diagnósticos, fórmulas, produtos químicos e farmacêuticos, etc.) 2. ed. Rio [de Janeiro] Editôra Científica, 1955. 471 p.

Gives approximately 12,000 words with synonymous terms or short definitions.

Pharmacy

91. SCARTEZZINI, CARMELINO. *Dicionário farmacêutico*. Rio de Janeiro, Editôra Científica [1956] 648 p.

Dictionary of approximately 16,000 terms most frequently used, gives synonymous terms or short definitions.

RUSSIAN

92. CHASHNIK, S. D. AND SHUSTER, V. G. *Nemeĭsko-russkiĭ meditsinskiĭ slovar'*. [German-Russian Medical Dictionary] Pod. red. M. P. Mul'tanovskogo. Moskva, Medgiz, 1953. 536 p.

Russian equivalents of approximately 30,000 German terms, including chemistry, zoology, and veterinary science. List of abbreviations at end.

93. JABLONSKI, STANLEY. *Russian-English Medical Dictionary*; ed. by Ben S. Levine. New York, Academic Press, 1958. 423 p.

Up-to-date dictionary of English equivalents of Russian medical terms, including chemistry, phytopathology, physics, and other peripheral sciences; includes nonmedical terms found in Russian medical literature; lists abbreviations with emphasis on organizations. Intended for use in translation of Russian medical literature.

94. KARPOVICH, EUGENE A. *Russian-English Biological & Medical Dictionary*. 1st ed. New York, Technical Dictionaries Co., 1958. 398 p.

Photo-offset edition of about 35,000 Russian entries in biology, botany, zoology, medicine, and agriculture, with their English equivalents. Intended for the use of English-speaking scientists, doctors, biologists, editors, librarians, and other workers in the biomedical field.

95. MUL'TANOVSKIĭ, MIKHAIL PETROVICH AND IVANOVA, A. *English-Russian*

Medical Dictionary. Moscow, State Pub. Office for Medical Literature, 1958. 635 p.

37,000 terms used in medicine including terms used in agriculture and chemical technology, with Russian equivalents and a few definitions. Includes abbreviations; some nonmedical terms included. English pronunciations indicated.

96. SOMMERAU, E. F. *Nemeĭsko-russkiĭ meditsinskiĭ slovar'*. [German-Russian Medical Dictionary] Pod. red. G. A. Rein'berga. Moskva, Medgiz, 1958. 459 p.

Russian equivalents for 25,000 German terms in medicine including basic terms in chemistry, physics, and electrotechnology.

97. VOL'FSON, S. I. *Latino-russkiĭ meditsinskiĭ slovar'*. [Latin-Russian Medical Dictionary] Pod. red. A. G. Lushnikova. Izd. 2, perer. i dop. Moskva, Medgiz, 1957. 422 p.

Russian equivalents of Latin terms; includes list of abbreviations and list of Latin phrases commonly used; short supplement of Russian-Latin.

See also Polyglot (no. 78-87); DUBAY (no. 98); HOFMAN (no. 73, 74); Slovenská akadémia vied (no. 99)

SERBIAN

See KOSTIĆ (no. 82)

SLOVAK

98. DUBAY, LADISLAV. *Malý rusko-slovenský lekársky slovník*. Bratislava, Slovenská akadémia vied, 1953. 124 p.

Pocket-sized dictionary of Slovak equivalents of Russian basic medical terms, followed in many cases by the Latin term; intended for the use of physicians and medical students in the study of Russian medical literature; includes list of drugs in common use in Russia.

99. Slovenská akadémia vied, Bratislava. *Vel'ký rusko-slovenský lekársky slovník*. [Hlavná redakcia: Konštantín Barna and others. Pod. Vedením Jaroslava Savul'áka] Bratislava, 1959. 781 p.

Comprehensive dictionary of about 65,000 Russian medical terms with Slovak equivalents, including new words. Covers related fields of bacteriology, biology, biochemistry, botany, entomology, pharmacology, physics, chemistry, psychology, veterinary medicine, and zoology. For Russian anatomical terms nomenclature of Jena is used, and for Slovak, nomenclature of Basle; Latin translation is given for chemical terms.

SLOVENE

100. ČERNIČ, MIRKO. *Slovenski zdravstveni besednjak*. Ljubljana, [Državna založba Slovenije] 1957. 707 p.

Fairly inclusive dictionary in the Slovene language for physicians, medical students, and nurses. Covers medicine and related fields; contains nearly 15,000 medical terms with derivations of many words. Includes eponyms and brief biographical information, names and descriptions of drugs, diseases and operations.

SPANISH

101. BRAIER, LÉON. *Diccionario enciclopédico de medicina*. Buenos Aires, Ediciones Heracles, 1955. 2v. (660, 732 p.).

Medical dictionary intended for professionals and students in Spanish-speaking countries. Includes new words, pharmaceutical terms, and biographical sketches of famous persons. Word derivation is given in most cases followed by definition. Appendix: lists of eponyms, tests, reactions, syndromes, polyglot dictionary in Spanish, German, French, English, and Italian of more than 1,000 terms commonly used in medicine.

102. CARDENAL PUJALS, LÉON, ed. *Diccionario terminológico de ciencias médicas*. 7. ed. Barcelona, Salvat [1960] 1304 p.

Standard medical dictionary, but not as comprehensive as Dorland and Stedman. Includes new words, identifying biographical information, tables of muscles, nerves, arteries, and veins. Supplement: short lists of German, French, Italian, English, and Portuguese medical terms with Spanish equivalents.

103. RUIZ TORRES, FRANCISCO. *Diccionario alemán-español y español-alemán de medicina*. [1. ed.] Madrid, Editorial Alhambra [1957] 847 p.

68,000 words with equivalent terms and some definitions; includes eponyms. Spanish-German section restricted to equivalent terms.

104. RUIZ TORRES, FRANCISCO. *Diccionario inglés-español, español-inglés de medicina*. [2. ed.] Madrid, Editorial Alhambra [1960] 665 p.

Dictionary of equivalent terms; English-Spanish section contains 50,000 words; useful idiomatic phrases at end of each letter section; includes list of Latin and English abbreviations with Spanish meanings. See also Polyglot (no. 78-87); GARNIER (no. 37)

Dentistry

105. DURANTE AVELLANAL, CIRO AND DURANTE, M. I. *Diccionario odontológico*. Buenos Aires, Ediar, 1955. 739 p.

Comprehensive; includes some medical and pharmaceutical terms; contains abbreviations, biographical sketches, some portraits.

SWEDISH

106. WERNSTEDT, WILHELM EDVARD. *Medicinsk terminologi*. 4. uppl. omarbetad och utökad. Stockholm, Nordiska Bokhandeln [1959] 612 p.

Inclusive medical dictionary in Swedish similar to standard American dictionaries but not as comprehensive. Includes eponyms, abbreviations.

TERMINOLOGY AND ABBREVIATIONS

107. AGARD, WALTER RAYMOND AND HOWE, HERBERT M. *Medical Greek and Latin at a Glance*. 3d ed., completely rev. and reset. [New York, Hoeber, 1955] 96 p.

Contains about a thousand Greek and Latin words used in forming scientific terms; intended for the medical undergraduate. Gives verb roots, prefixes and suffixes; lists of combining forms arranged according to body system.

108. CLARK, WALLACE AND CLARK, ANNE. *Guide to Medical Terminology*. Philadelphia, Davis, 1956. 130 p.

In tabular form; combining form, prefix, or suffix, with its derivation given first, followed by its meaning, example of English word, make-up and meaning of the English word. Intended for medical students, nurses, medical writers; includes words used in pharmacy, veterinary medicine, and dentistry. English meanings of common combining forms given at end.

109. FRENAY, AGNES CLARE. *Understanding Medical Terminology*. Saint Louis, Catholic Hospital Association [c1958] 202 p.

Classified arrangement by body system; gives Greek and Latin roots, medical terms, analysis, and definition; includes abbreviations, selected terms relating to allied fields and medical specialties. Good index.

110. GIDLEY, WILLIAM FRANCIS AND MORENO, JOSEPH R. *Pharmaceutical and Medical Latin*. Austin, Texas, Hemphill's [1959] 109 p.

Outline of Latin grammar; includes lists of nouns, adjectives, and other parts of speech frequently used in pharmacy and medicine, prescription words and abbreviations; Latin-English and English-Latin vocabulary, p. 79-109; index.

111. JAEGER, EDMUND CARROLL. *A Source-Book of Biological Names and Terms*. 3d ed. Springfield, Ill., Thomas [1955] 317 p.

Combining forms, prefixes, and suffixes arranged alphabetically; gives derivation, meaning, and example word. Supplement includes

more than 1,000 new entries and short biographies of persons commemorated in botanical and zoological generic names.

112. MARTINS JOSÉ MURILO. *English for the Foreign Physician*. Springfield, Ill., Thomas [1960] 121 p.

Practical examples in English of questions the resident physician will ask and the patient answer in the daily routine of the average American hospital. A chapter is devoted to each department, such as outpatient, emergency, surgery, and pediatrics, and includes abbreviations, vocabulary, with emphasis on hospital vernacular, and practice exercises with answers. Appendix gives substantial list of abbreviations; good index.

113. ROBERTS, FRANGCON. *Medical Terms, Their Origin and Construction*. 3d ed., rev. and enl. London, Heinemann, 1959. 92 p.

Part 1 discusses word derivation and construction; part 2 lists Greek and Latin combining forms, English meaning, and word examples. Includes new words; intended for medical students and other health workers. Good index.

114. SCHMIDT, JACOB EDWARD. *Reversicon: a Medical Word Finder*. Springfield, Ill., Thomas [c1958] 440 p.

Meanings listed in alphabetical order followed by the word which is being defined; definitions expressed in words understandable to the nonprofessional.

115. STEEN, EDWIN BENZEL. *Dictionary of Abbreviations in Medicine and the Related Sciences*. Philadelphia, Davis, 1960. [102] p.

Useful list of medical abbreviations alphabetically arranged and including various societies, organizations, and governmental agencies having a relationship to medicine. A limited number of journal abbreviations are given.

116. WAIN, HARRY. *The Story Behind the Word; Some Interesting Origins of Medical Terms*. Springfield, Ill., Thomas [c1958] 342 p.

Origin and history of over 5,700 medical terms; includes many short biographies of persons famous for contributions to medicine.

Housing the Library

Part I. The Old Building

BY KEYES D. METCALF

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IN THE thirty years between 1865 and 1895, when the old Surgeon General's Library was under the direction of Dr. John Shaw Billings, it grew from a small collection of books and pamphlets in the Surgeon General's office to become the greatest medical library of the United States, if not of the world. Its collections were made available to doctors and others who were interested through the *Index-Catalogue*, one of the great bibliographies of all time, and the *Index Medicus*.

In 1866, Dr. Billings was able to move the Library into what had been the Ford Theatre, where President Lincoln had been assassinated the previous year. With the Library came the Army Medical Museum, the mortuary records of the Medical Department, and the Army Chemical Laboratory. The Ford Building was not satisfactory for the purpose to which it had been assigned. It was overcrowded, even from the beginning, and ill-adapted as a place to serve and store the collections. It was surrounded by inflammable houses and outbuildings. Its walls were weak and out of plumb and held together by the roof. The Museum, which was on the third floor, was probably in the most dangerous location, and if it had become involved in a fire or other catastrophe, the lower floors, housing the library, medical records, and offices would have suffered also. The annual report of the Surgeon General in 1880 stated that "A new fireproof building is a necessity for the Army Medical Museum and Library," and this statement was repeated annually over the next few years. The Surgeon General felt that "no expenditure for mere architectural display is required . . . a suitable structure can be erected at a cost not to exceed \$250,000."

Finally, after nearly five years of struggle—a comparatively short time when we consider the delays in this century at a time when a new building was equally important—Congress passed a bill which was signed by President Arthur on March 2, 1885, authorizing "a brick and metal fireproof building to be used for the safekeeping of the records, library and Museum of the Surgeon General's Office of the United States Army . . . to be constructed upon the Government reservation in the city of Washington, in

the vicinity of the National Museum and the Smithsonian Institution," at a cost not to exceed \$200,000. This sum was \$50,000 less than the Surgeon General had asked for nearly five years earlier. The contract for the new building was awarded to Bright and Humphrey of Washington, and the work was supervised by the United States Corps of Engineers. The reduced size of the appropriation resulted in a smaller and plainer building than the Surgeon General had hoped for, but he reported that it should provide space for the absolute necessities for some years to come. The new building, which is the one that is still occupied by the Library, was erected at the corner of Seventh Street and B Avenue (now Independence Avenue). It was completed early in the autumn of 1887, and by February 1888 was occupied by the Library and by the Museum. It was built somewhat in the shape of a "U," with the entrance at the center of the base of the "U." The main stairway leading to the upper floors and the basement was opposite the entrance. The rest of this side of the building above the basement was occupied by offices. The Library's collections at the beginning were on the left arm of the "U," in a great hall partly filled with a three-story cast-iron bookstack, with a large reading area on the Independence Avenue side. The Army Museum occupied a large part of the right-hand wing, which included primarily a great exhibition hall with a balcony around it.

Dr. Billings must have had a good deal to do with the planning and should be given credit for the basic strong points which characterize the building. Today, 73 years after construction, it is the oldest library building housing a great research collection in the United States. The University of Pennsylvania Library was completed four years later, early in 1891; it is now being replaced by a new library. The Cornell University Library was completed in October, 1891; a new central library for Cornell is now under construction, and the old building after gutting and complete rebuilding, except for the sturdy stone walls, will be retained as an undergraduate library. The Newberry Library, the fourth oldest, was completed late in 1893, and detailed studies are now being made in regard to its future. In many ways the Army Medical Library was a better planned building than either of the university libraries listed. Each individual floor being on a single level, the inconvenience of a few steps up and down between levels was eliminated though it occurred in the university libraries. There have been no extensive additions to Army Medical Library although a great many alterations within its four walls have been made; both the university libraries have been enlarged. The Army Medical Library bookstack, a three-level cast-iron stack, has tended to buckle in recent years because it was overloaded. Its walls, as well as its roof, have leaked. There have been drainage difficulties in the cellar. But when it is remembered that the building was planned at a time when the largest library in the country

to be housed in one building had little more than 250,000 volumes, it can be seen that the planning job was commendable. It is also evident that, with the tremendous development of libraries in this country in the past seventy years, the building has become completely outmoded. Lighting in 1887 was a far cry from that in 1960, and although changes have been made in recent years still better lighting is now possible. Air conditioning is lacking in most of the building, because air conditioning, as we speak of it today, was unheard of in 1887; and this lack has inevitably led to progressive damage to the Library's collections. Under present conditions it is practically impossible to care for the books properly. Overcrowding, in spite of the fact that a large amount of supplementary shelving has been provided, has taken its toll, and the collections, in spite of efforts to improve their condition, show the results of the Library's history of neglect for well over a generation. Fortunately, for nearly twenty years the great collection of rare books has been far more suitably housed in the Cleveland branch, or irreparable damage of irreplaceable material would have resulted.

The need for additional space for the Library has existed for many years. As early as 1896 when the building had been occupied less than a decade, shelf space began to be at a premium, and an appropriation of \$6,000 was requested for the construction of "six additional bookstacks"; but it was in vain. The situation became serious by the end of the century. The Surgeon General proposed that activities other than those of the Library and the Museum be removed, but nothing happened. In 1904 he reported, "The amount of money asked for has of necessity been increased, not because any more extensive construction is now wanted than when first estimated for, but because the price of both material and workmanship seems to have doubled. Unless the appropriation, now estimated at \$13,000, is allowed without further delay, the Library will be unable to locate its own books without great delay and trouble. New books, for lack of shelf room, are stacked upon the floors and piled on top of the rows as near as possible to the section where they would naturally be placed if there were room enough. . . . The shelves asked for are now absolutely necessary to the continuance of the efficiency of the library and will, it is believed, if granted, be sufficient for the present collection and its increase for ten years."

This time something happened, and in 1906 the additional bookstacks were installed after an appropriation, not of \$13,000, but of \$8,000, was provided. The long struggle for this comparatively small amount of new shelving had its repercussions. One group proposed that the Library be transferred to the Smithsonian Institution; another, somewhat later, suggested merger with the Library of Congress; but both proposals fell on barren ground, as had similar suggestions a generation earlier.

In 1910 the Army Medical School was removed from the building, and the space that it had occupied was pressed into service by the Library; with the aid of \$10,000, extensive repairs were undertaken. Completely new plumbing was installed, the walls were repainted, and the roof and heating plant were repaired.

In 1916 the Surgeon General again brought up the question of additional space, and reported on the need for a new, modern, fireproof building. The next year he said: "There should be no delay in erecting in some central spot in our Capital City a modern, fireproof structure, adequate in every respect to house for all time in safety what is justly considered to be the most useful as well as the most extensive collection relating to medicine and science ever achieved." It should be noted that he did not suggest a location for the building except to say that it should be at some central spot in Washington. Interest was aroused, and it was hoped that the request for \$10,000 to make plans for a new building would be granted, but approval was not forthcoming; a year later, when the question came up again, a proposal for the purchase of land next to the Walter Reed Hospital "for the final location of the Army Medical Museum, the Surgeon General's Library, and the Army Medical School" also failed. Some of the pressure for additional space was relieved in 1920 when the Army Adjutant General's Office and the Record and Pension Office left the building, and space in the basement under Library Hall became available for a reading area and books.

There was no improvement in the condition of the Library in the next decade. During the war—the first World War—when the Army had large funds at its disposal, nonemergency matters, such as the Library's space problems, were not considered important, and later, after the war, when Army appropriations were reduced, new construction did not seem feasible. And so the years passed on. The crowded conditions continued. During the depression of the 1930's, the overcrowding was alleviated, but hardly cured, when appropriations for additions to the library were so reduced that in one period of 22 months only 16 new books were purchased. Hope for the future and for a new building was almost forgotten, but, of course, books and periodicals continued to come in. New shelving was installed whenever funds were made available and wherever a little space could be found and fire regulations and the strength of the floors permitted additional weight. But the Library's need for new quarters larger in size and better in quality continued.

In 1937 Colonel Jones, who was then in command of the Library, reported that additional accommodations would have to be obtained elsewhere, even if a new building were voted immediately, because accommodations for books and personnel would reach the bursting point before the new construction could be completed. The following year bills were

passed by Congress authorizing, but not appropriating, funds for a new building for the Library and the Museum at a cost not to exceed \$3,750,000. A year later \$130,000 was appropriated for the preparation of plans for the new library, and it seemed at last as though action would follow. In the meantime, 55 tons of material not of immediate use were boxed and placed in dead storage at the Army Medical Center.

Another step followed in 1941. A million dollars was authorized for the purchase of a site for the Library on Capitol Hill, and preliminary plans were actually prepared for a building near the Folger Library and the Library of Congress Annex; to make assurance of progress even greater, the National Parks Commission and the Fine Arts Commission approved the location. But funds for the site, working drawings, and construction were not appropriated; World War II intervened and prevented further activities, and the high hopes which had seemed to be fulfilled were blasted.

Something had to happen, however. The war had at least indirect benefits. Colonel Jones realized the danger to the rare book collection, because of the crowded conditions in unsatisfactory housing as well as the possibility of enemy attack on Washington, and he was able to establish the Cleveland branch of the Army Medical Library, which later became known as the History of Medicine Division and included the most valuable parts of the library's collections, in rented space at the Allen Memorial Medical Library in Cleveland, Ohio. This branch was fortunately not a dead storage library. In Cleveland the collections of books published before and during the eighteenth century were housed together, repaired or rebound, brought under satisfactory bibliographical control, and made available to accredited users. But even this relief from pressure for space in the Washington building was not enough. Twenty thousand inactive volumes were shelved in the National Archives. Considerable portions of the Library's collections were later moved into the Fisheries Building and the Fisheries Building Annex, across Seventh Street from the Main Library. These books were later moved again to the temporary barracks buildings on the opposite side of Independence Avenue.

While the War was still in progress, during 1943-44, the Rockefeller Foundation, through Dr. Alan Gregg and with the support of Colonel Jones, arranged for a survey of the Library's needs. I was a member of the survey, and I well remember one statement made in its report: "A new building is an absolute necessity." The report went on to say that construction should begin as soon as possible after the War and should be completed within two years. The survey committee was worried not only about the physical conditions which handicapped the Library, but also about its financial condition. It stated, "The support of the Library is not something

to be turned on and off like a faucet. If the War Department is not ready to supply the required support year in and year out, another sponsor must be found, or the Library cannot remain a great one."

Planning a new building continued throughout the War, and by its end the architects were working on "Scheme K" for a building to be located on Capitol Hill, just east of the Library of Congress. By this time, of course, costs had increased greatly and the War Department could not be persuaded to arrange for the necessary appropriations. Almost endless discussions about the need for the new building, and particularly about the site to be selected, continued. One group felt strongly that a site near the Library of Congress would be the most suitable, to make it easier to avoid unnecessary duplication within the two libraries and to make access to both of them available to research workers in the medical field. Another group thought that the Library could be moved to the northern part of the city near one of the hospitals or medical research centers there. There were many heated arguments between the groups. I confess that at first I was strongly in favor of a location in the vicinity of the Library of Congress. Later, with others, I decided that, because a larger and larger percentage of the Library's work with medical and other research workers was carried on, not by persons coming to Washington and wanting to find the Library reasonably close to the railroad or air terminals, but by interlibrary loan and, later, by photographic reproduction, a better location would be near a medical research center. Next to the Walter Reed Hospital there was one possible location, and the Army Medical Museum has been placed there. Another possibility was farther north, at Bethesda, Maryland, where the National Institutes of Health and the Naval Medical Center are located. A site was tentatively selected to the east of the Naval Medical Center in a ravine where a large part of the building could be placed below ground level without undue cost for excavation—this with the idea of protection from bomb damage. The task of studying the needs was put in the hands of a well qualified naval officer, Lieutenant Commander John A. Oley. Commander Oley's work went a long way toward clarifying the special needs of the Library as far as size and the physical relationships of its various departments were concerned; his diagrams have been of considerable value to the architects who planned the new building which is now in course of erection.

Meanwhile the problem of sponsorship of the Library was under study by a special committee of the Medical Task Force of the second Hoover Commission, under the chairmanship of Dr. Alan Gregg. In 1955 the Commission reported its recommendation that the Library become the National Library of Medicine, that it be divorced from the Department of Defense,

and that it be attached to the Smithsonian Institution. In 1956 the Congress made the final decision, and in the National Library of Medicine Act invested jurisdiction over the Library in the Public Health Service of the Department of Health, Education, and Welfare. In April 1957 the Library's Board of Regents designated a site for construction on the grounds of the National Institutes of Health, and in June of that year a contract was signed with the architectural firm of R. B. O'Connor and W. H. Kilham, Jr., of New York City, for the design of the building.

Housing the Library

Part II. The New Building

BY WALTER H. KILHAM, JR.

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THE architects were authorized to start their work by a contract signed on May 9, 1957. The initial work requested was in the form of a subcontract requiring a report to determine two main things: first, the functional and space requirements based on the tentative program and supplemental information to be furnished by the National Library of Medicine, and second, in relation to these requirements to evaluate and determine the practicality of the complete or partial use, if any, of the Advance Planning Report FY 1956, for the Armed Forces Medical Library, National Naval Medical Center, Bethesda. This Report included preliminary drawings of the building as proposed by the Navy's Bureau of Yards and Docks.

Mr. Metcalf had been the consultant to the Navy on these plans, and consequently the architects had the advantage of continuity of advice and suggestions in the new development. The determination of the functional and space requirements started, naturally, with a review of earlier work.

The Tentative Program of Requirements provided by NLM officials called for an area of 240,000 sq. ft. (a reduction from the 300,000 of the Navy plan), storage for 1,100,000 volumes, a staff of 250 people, and provision of 175 seats for the reading public. The chief characteristics of this new Library, as compared with the more usual one, were a relatively large staff of technical and clerical personnel, stacks closed to the public, specialization in the collection of medical material, and utilization of specialized technical equipment to an unusual degree, particularly in photography. Most of its service was by mail, and was world-wide in range. The number of readers present in the Library at any time would be relatively small; while these readers would make use of the public catalog, the Acquisition and Catalog Divisions would use it heavily and would have to be located near it.

The question of whether to use the Navy plans had to be resolved. Investigation showed that, while the program had been thoroughly studied, the plans were not far advanced and were based on a library building calling for 300,000 sq. ft. which was more than the space allowance permitted by the Bureau of the Budget. Also it had been designed for another site. The final decision was to start afresh.

Many sites had received consideration and the ultimate selection, from the architect's point of view, seemed most suitable. In the southeast corner of the grounds of the National Institutes of Health, across the avenue from the Naval Hospital, there was a golf course. Ten acres of this area on Wisconsin Avenue were made available for the Library. The possibility of locating the building on a knoll at the foot of which flowed a small stream gave the opportunity of providing a beautiful setting for the Library with open land all about. It would, of course, have to be related to the master plan in preparation for the general NIH site. As part of the NIH site, utilities were generally available. Good access from Wisconsin Avenue was possible.

The first step was to establish the size of the main floor, where the principal functions take place. In this case the minimum requirements, at first, seemed to be provision for administration (with the office of the Director), reference librarians, acquisition librarians and catalogers, the public catalog, the loan and reference desk, and the general reading room, all to be grouped about the public catalog, the heart of the Library. The result was a trial area of 55,000 sq. ft.

The first floor below grade, "A" level, was next in importance. Here it was found that the controlling factor would be the service entrance which had to be connected with grade level. Related to it would be the receiving, shipping, and general service areas. The remainder of this floor would be devoted to the photographic services, the film section, and binding. The only public area remaining to be taken care of was the History of Medicine Collection including the Art Section, both located below grade to provide protection.

The allowance of 125,000 sq. ft. for stacks and related functions together with the area of "A" floor made a total of 163,000 sq. ft. below the main floor. If each underground floor were 55,000 sq. ft., the area of the first floor considered correct for economic planning, it could be assumed there should be three basement levels. There remained 20,800 sq. ft. for a second floor above grade to accommodate the somewhat independently operated Index Division, the balance of the administration offices, and a cafeteria. It was obvious that the last would have to be only a partial or mezzanine floor.

With this as a framework numerous schemes were studied in the trial and error method in which architecture proceeds until finally one, numbered H-12, seemed to meet the requirements in the best overall way. There must have been a little uncertainty even then, as "I" series of plans was started.

The basic decisions of this last scheme can be seen in the final plans. The principal alteration was the relocation of the History of Medicine Division, which, being open to the public, was moved up to the main floor

so that all the public areas would be on one level, simplifying control, but sacrificing some of the intended protection of the rare books below-grade. Their stacks, being closed to the public anyway, could remain below. To accommodate this change, the Director's office was moved up to the mezzanine, thereby consolidating the administration areas.

Consideration turned now to some of the physical aspects of the project; with the three levels below grade, the question of drainage became important. No librarian likes to think of water in contact with his books. The amount of water modern fire engines can pump into such a vast basement is not inconsiderable, and even water mains may break. So it seemed desirable to aim for gravity drainage of the lowest area of books. Reliance on sump pumps would not do, for in time of catastrophe power to operate them would almost certainly be cut off. Therefore, the lowest level of books was established sufficiently above that of the brook to permit a gravity drainage line to run out to the valley, where the stream might be enclosed in a storm sewer at some future time.

As a general principle, our mechanical engineers, James Mongitore Associates, had already decided on vertical rather than horizontal distribution of air in order to reduce floor thickness, so we were able to estimate the height between floors and establish the level of the first floor. Planning on flat slab construction without projecting beams, the clear floor-to-ceiling height of 8 ft.-6 in. was agreed upon. This would put the first floor somewhat above the average outside grade. It was not forgotten there would be a vast amount of earth to be taken out of the excavation.

The natural reaction would be to sell the earth for fill on some other project, but we thought we had a better use. Having tentatively located the Library on the highest part of the land, a sort of knoll, the excavated material could be placed around the sides, in effect extending the knoll, and balancing out the amount of excavation required. With two-thirds of the building below grade, we had been concerned that the amount remaining above ground might not seem as significant or imposing as one would expect for an institution of this character. Distribution of this excavated material in terraces would enhance the appearance of the building; it would help to give the library a special individual character in an area already dominated by high buildings.

While the site provided was relatively generous in size, the necessity of keeping to the high ground pushed the building back, but this provided a good setting, as the Library would be seen from Wisconsin Avenue across the fields of the old golf links. In adjusting the site plans to the overall plans of the National Institutes of Health, it was agreed that an open strip along the main boundaries of the NIH would be retained for

their future projects for which plans are already under way. The ideal disposition of the building, of course, was tempered by the necessity of providing adequate parking spaces and making an allowance for future expansion. It was decided to make this allowance at the rear of the building so that, as a significant public building, its established impression from the front would be preserved. This expansion area, in the present plan, is covered by a parking area to bring the cars as near to the building as practical for the time being.

Throughout this period of plan development the architect always had the direct participation of Frank B. Rogers, the Director of the Library, together with the continuous help of his Special Assistant for the project, at first R. W. Severance, then Ray W. Grim, the Library's Executive Officer. The Public Buildings Service of the General Services Administration was ably represented by C. J. Biegalski until his untimely death, when he was followed by J. Victor Keyes.

Before starting the plans in detail, a module had to be determined which would be a guide to accommodating in the most practical way the vast number of bookstacks. From the structural point of view, the nearer the typical bay is to a square the better, and the conclusion was reached that a bay approximately 21 feet square would meet the various requirements in the best way. The actual size settled upon was 21 ft. by 21 ft. 1 in. to allow some tolerance in setting the bookstacks (3 ft. units, on 4 ft. 2½ in. centers). The modular system was also extended to the ventilation scheme so that every bay would have supply and exhaust available. The building had also assumed a simple rectangular shape, so that as it expanded it would more nearly approach the area efficiency of a square. For flexibility in usage, fire safety, and protection, the use of a series of flat concrete slab floors was decided on rather than multiple tier stacks.

Detailed consideration of the exterior now began to take place. As an unusual initial requirement, characteristic of the age we live in, particular consideration had to be given to bomb blast effect where it might influence structural design. (It happened that our structural engineers, Severud, Elstad and Kruger, were one of the Government's principal consultants on this particular subject.) The first step in this direction was the proposal to locate the stacks below ground, inherited from the Navy plans.

It was realized that resistance to bombing by structures built on the principle of an old fashioned fort is no longer possible. The effects of a direct hit, of course, were not being considered, but the stupendous pressures raised by bombs falling anywhere near were matters of concern. The provision of an excavation for the storage of the books would not serve the purpose by itself. The roof of any reasonably possible floor would be punched in, as would any typical walls above grade. The

new basic principle now being followed is to endeavor to equalize the pressures on both sides of any floor or wall. In case of floors at grade or below, this is done by providing a dry moat around the building back of an embankment. Into this can be opened ventilating louvres for the required area so that the pressure of an explosion could be let in under the floor in time to equalize the pressure from above.

For the same reason vertical slots were initially planned for each section of wall, again to equalize external pressures. These slots are in effect a set-back portion of the wall provided with an opening in either direction. This opening is glazed at right angles to the wall so that if glass were broken it would fly along the wall rather than inwards over the working areas. It is, in effect, a bay window in reverse, with solid panels in the part parallel to the outside wall. With the large floor areas established and arranged to keep the people who work in the Library in as close proximity to the central catalog as possible, rather than to let them spread out in radiating wings, the working areas extend back far from the exterior wall and therefore cannot depend on natural light. Furthermore, it is perfectly practical to be entirely dependent on artificial light and ventilation, even though some people like to have an opportunity to look out once in a while, and it is convenient, when it is time to go home, to know whether it is raining outside. Various designs in arrangement of openings were considered, but it was finally concluded that the tall vertical slots were architecturally the most interesting and carried out the most effective design for the building.

For protection from bomb blast damage, the vast area of the floors would also require a pressure-relief opening near the center. This was the beginning of the idea of some form of clerestory roof near the middle of the building to cover such an opening. While a few studies were made with a flat roof, nearly all showed some form of dome structure over this area. As things developed it was further realized that the roof and well would emphasize the heart of the Library—the card catalog area—used by staff and public alike. To give added impact on entering the Library a source of light coming through the mezzanine with a dome above seemed to us attractive. Domes of various shapes were considered, although today these domes would be considered an expensive way to roof a large area. In Mexico, however, an architect named Felix Candela had successfully roofed large areas with thin concrete shells in the form of hyperbolic-paraboloids. This method has the advantage that the form work can be constructed entirely of straight pieces of lumber despite the unusual shape resulting. In addition, the new shape in itself is a great source of strength because the concrete can be very thin, saving weight, hence coming to be known as a shell. Its use would give a dome in which

the form work would not be unduly expensive; in fact, a saving was possible.

The result is somewhat like a starched handkerchief supported at the four corners and raised in between. The gable so formed permits windows to be placed giving the clerestory through which light comes down through the opening in the mezzanine to the catalog below.

The unusual shape that resulted, of course, gave some misgivings to many people, but as time went on it came to be accepted and finally liked by practically everyone; it gives a special character to this building. The final estimates indicated it would not have the adverse affect on the budget that some were afraid of at first.

These considerations had an important bearing in establishing the original architectural design and were retained in the final design, although it was eventually decided that the additional funds necessary to provide the embankment, moat, and under-floor louvres should not be spent.

The Library is fortunate in having a limestone rather than a brick exterior, possible, economically, because most of the building is below ground where a facing is not required. Because the uniformity of this particular stone makes it monotonous in large areas, the slabs of stone are arranged to give a pattern or texture to the wall with narrow border stones between the large pieces, recessed in such a way as to emphasize shadow lines.

Above the main story the building is set back radically to the mezzanine floor forming a square at the center of the building. This square is surmounted by the dome, or shell structure, on four piers.

The front entrance is emphasized by a panel of polished green granite, a full story high, bearing the name of the Library. The panel is made up of six large stones, believed to be the largest ever taken from the quarry located in Ogunquit, Maine.

Coming into the building the visitor arrives in a front hall or lobby where on the marble wall to the right will be incised portraits, by the sculptor Paul Jennewein, of three men significant in the history of the Library: Billings, Fletcher, and Garrison. The catalog is straight ahead for the users of the Library, and a stair to the right leads to the administrative area. Nearest the front door and to the right, is the entrance to the History of Medicine Division. This room will have specially designed furniture and will be finished in butternut wood, with grilled cases around the walls so that the books may be seen as well as benefit by the air conditioning. Special provisions are made for exhibition in this area, and in addition to open tables there are special studies provided for visiting scholars. An area opposite the desk is provided with glazed-in cases where items of special interest, such as incunabula, may be kept on view.

In the public catalog area a very large circular fixture supplements the normal lighting to give a higher intensity of light at the catalog drawers. Above, the face of the mezzanine balcony will be finished in a mosaic design by Frans Wildenhain.

Through the catalog area to the left is the public reading room.

Upstairs the floor of the mezzanine section is somewhat recessed below the main roof to save cubage as well as to improve the exterior appearance; there are only high windows above the wall spaces around the rooms to let in natural light. This permits cases to be set against the wall. While persons working at this level do not have the pleasure of looking down on the grounds outside, they do have the interesting opportunity to look over the balcony down at the catalog below or to the dome. The Board Room, practically an all-purpose room, is also located on this floor.

As for the outside of the building, a special effort has been made in the landscape design. Bethesda is a neighborhood which has high standards of landscape development, particularly characterized by the variety of its flowering shrubs and trees. With a building of almost classical severity, having large areas of plain walls and the extensive base of terraced slopes, the proper use of the plant material is important. To enhance the setting, flowering crab apple trees are spaced around three sides of the building; these low trees have been intentionally selected to carry out the horizontal feeling. Not only will their flowers be pleasing in the spring, but in winter the pattern of their branches will also provide interest.

Evergreen materials, separated by a splash stop of pebbles, are used against the base of the building to strengthen it in its setting the year round. Additional trees and flowering shrubs are provided in a way to enhance this aspect as seen from a distance. Particular effort has been made to select those that come into blossom successively in the spring so that the flowering is not all over in one brief period but there is a continuity of bloom over an extensive period of time. Some of the other plants that are used are the sweetbay magnolia, forsythia, and Korean azalea. Shadblow and other varieties of azaleas are provided along the roads to continue the blossoming effect. Mountain silverbell trees will blossom against a background of hemlock. A row of Japanese dogwood runs along the north side of the staff parking area. The selections have been made not only for effect, but also for operating economy; trees, such as yews and holly that will not require clipping, and periwinkle, juniper, and roses that serve as ground cover, reduce the cost of maintenance.

A few statistics might be the best way to summarize the story of the National Library of Medicine:

Gross area of building at ground level: 53,287 sq. ft.

Number of levels: 5; 3 below grade.

Floor to ceiling heights: C 8'-6"; B 8'-6"; A 9'-0"; First Floor 14'-0"; Mezzanine 9'-8".

Modular column spacing: 21'-0" x 21'-1".

Total number of square feet: 231,855.

Total number of cubic feet: 3,187,476.

Stack capacity: 1,061,150 (according to "cubook" formula).

Catalog drawers: 4,550.

Number of staff: 250.

Lighting: Generally fluorescent.

Air conditioning provided.

National Medical Bibliographies

By GENEVIEVE NIH SCHIFFMANN

Reference Librarian

National Library of Medicine

IN an article published in 1950 (1), Scott Adams described ten national medical indexes which recorded the medical literature production of a single country, or of the citizens of that country. A more extensive list of such indexes is included in the Medical Library Association's *Handbook of Medical Library Practice*, 1956 (4), and a short list of current national medical bibliographies is included in volume 3 of L. N. Malclès' *Les sources du travail bibliographique* (3). It is interesting that, though new medical bibliographies with varying degrees of international coverage, such as the *Current List of Medical Literature* (superseded in 1960 by *Index Medicus*) and *Excerpta Medica*, have developed since the end of World War II, bibliographies restricted to the medical literature of a single country continue to survive, and new titles continue to appear. Of the eleven national medical bibliographies listed in the *Handbook of Medical Library Practice* which were "current" in 1953, ten are still being published. The eleventh title, *Sovetskoe meditsinskoe referativnoe obozrenie*, was replaced in January 1957 by *Meditsinskii referativnyi zhurnal*, an abstracting tool which includes foreign medical literature. Of the national medical bibliographies launched since 1953, six have survived.

This article lists "current" national medical bibliographies; that is, those which are being published regularly or irregularly on a continuing basis. Current bibliographies which contain substantial sections on medical literature of a country are also included. The value of a national medical bibliography as an adjunct to the international medical bibliographies can be measured by the extent of duplication of coverage, the language of publication, the currency of the contents, and the type of information given. The quantitative survey of current medical periodical literature made by Brodman and Taine (2) in 1958 furnishes useful base line information.

Although medical indexes with relatively extensive international coverage are now available, complete coverage of the "substantive" world medical literature is still a plan and hope of the future. At the National Library of Medicine plans are underway to close this bibliographic gap, but, at the present, national medical bibliographies which include articles from journals not indexed by the existing international medical indexes must be consulted in any attempt at exhaustive searches of the literature.

BELGIUM

Archiva medica Belgica. Bruxelles. vol. 1, 1946+.

Published in French by the Association des Sociétés Scientifiques Médicales Belges, it includes abstracts, some of considerable length and signed, of selected periodical articles, lists of journals and books, and occasional review articles based on work of Belgian authors. The abstracts are listed under broad subject groups. An annual author and subject index and a list of journal abbreviations is published. Forty-five journal titles are listed for 1958. The abstracts in the 1958 volume are of 1952 through 1957 publications.

BRAZIL

Índice-catálogo médico brasileiro. S. Paulo. vol. 1, 1937-38+.

Edited by Dr. Jorge de A. Maia, volumes 1-4 (part 1) were published irregularly by the Conselho Bibliotecário do E. de São Paulo and by the Faculdade de Medicina da Universidad de São Paulo. Lack of funds prevented publication of volume 4, 1941-1952, until 1956, and unlike the previous volumes, which are arranged by author and subject in one alphabet, volume 4 is a separate subject and author index. Of value is the list of congresses indexed. The list of sources given in volume 4 includes over 200 serial titles. Beginning with volume 4, part 2 (author index), the publication is continued by *Bibliografia brasileira de medicina*, published by the Instituto Brasileiro de Bibliografia e Document. Volumes 5, 6, and 7 covering the years 1953-1956, 1957, and 1958 are in preparation.

BULGARIA

Abstracts of Bulgarian Scientific Literature. Biology and Medicine. Sofia. vol. 1, 1958+.

Published quarterly in English and Russian editions by the Bulgarian Academy of Sciences, Central Library, Department for Scientific Information and Documentation, each issue contains two main sections: A. Biological Sciences, and B. Medicine. Within each section abstracts are arranged under broad disciplines. Each issue has a list of sources and an author index, both cumulated annually. The abstracts of both serial and nonserial material are signed and of considerable length. Each issue covers selected publications which have appeared during that quarter. Language of summary or summaries, if any, is indicated with the bibliographic data.

Letopis na periodichnâ pechat. Sofia. vol. 1, 1952+.

Published by the Bûlgarski Bibliografski Institut Elin Pelin, this is a monthly index of articles in periodicals, collected works, and *Festschriften* published in Bulgaria. The arrangement is according to the subject classification of the Bibliographical Institute, with book reviews separately listed. One of the sections is medicine and public health. Each issue has a list of sources and an author index, both cumulated annually. The first 1960 issue lists 148 references, almost all with 1959 publication date, in the field of medicine and public health.

CHINA

Chung wen i hsieh wen hsien fen lei so yin. Peking. 1958.

Compiled by the Nanking University Medical College Library, it indexes 82 Chinese medical periodicals published between 1949 and 1956. According to the contents note, three of the journals, the *Chung hua i hsieh tsa chih*, and *T'ung chi i hsieh chi k'an*, and the *Ch'i lu i k'an teng*, are indexed for the years prior to 1949, giving in effect a coverage of over 40 years within the 674 page volume. The material is arranged under 35 major subject headings, with detailed subheadings, covering medicine and including such allied fields as pharmacy and nursing. It is unknown if a continuation is in preparation; the preface, however, indicates the index may be brought up-to-date.

Science Abstracts of China. Biological Sciences. Peking. 1958+.

This classified list of abstracts of articles in Chinese journals is edited and published bimonthly by the Institute of Scientific and Technical Information of China. The subject coverage includes that of the preclinical and basic sciences in medicine, and the majority of articles are research papers with current publication dates. Inclusion of the subject "Traditional Chinese Medicine" reflects the official government sponsorship of that area. The abstracts, usually of considerable length, are in English, and the references are given in both English and Chinese. In the October 1959 issue, the latest available at the National Library of Medicine, 112 abstracts of medical interest are listed. It is unknown if the publication is continuing.

CZECHOSLOVAKIA

Annual of Czechoslovak Medical Literature. Prague. vol. 1, 1956+.

Compiled by the Státní Lékařská Knihovna, this first annual bibliography of Czechoslovakian medical literature will, according to the preface, be

continued on a yearly basis. It lists 6,264 entries and claims to be "practically complete." It is arranged by five major divisions which are subdivided by topic. An English translation of the title is included with each entry. Also included is an English subject index. Material indexed covers the preclinical and clinical medical sciences as well as biology, pharmacology, and veterinary medicine. A second volume, covering the Czechoslovakian medical literature for 1957 has been published.

Bibliografický katalog ČSR. Články v českých časopisech. Praha. vol. 1, 1953+.

Published by Národní Knihovna, and until 1953 under the title *Bibliografický katalog ČSR. České časopisy*, this monthly index of Czech periodical literature selects "important" articles from about 400 Czech journals, including medical journals. It follows the arrangement of the Soviet periodical index, *Letopis' zhurnal'nykh statei*. Material is grouped under broad sections, one of which is medicine and public health. Sections are subdivided and classified according to the Soviet classification. The second issue of 1960 cites 460 references in the medicine and public health section. An author index is included in each issue, and an author and subject index issued for each volume. The last issue of each volume includes a list of sources.

Bibliografický katalog ČSR. Články v slovenských časopisech. Praha. vol. 1, 1955+.

Supersedes the *Slovenské časopisy*, 1954; this monthly index is similar to the *Bibliografický katalog ČSR Články v českých časopisech*, but indexes periodical articles published in Slovakia. In addition to the author index, each issue has an index to the personal names appearing in the articles.

Bibliographia medica Českoslovaca. Prague. vol. 1, 1947+.

Volume 1 was published by Centrum Documentationis Medicae, volume 2 and subsequent volumes by Societas Medicorum Cechoslovacorum. Volume 4, 1950, was published in 1955. A 1958 publication with an identical title, covering the literature of 1951-1957, is out of print and not available for examination at the National Library of Medicine to determine if it is a continuation. The arrangement is by Universal Decimal Classification with an author and a subject index, and a list of sources is given. It indexes not only periodical literature but also monographs and composite works. Many titles are translated into French and English.

DENMARK

Index medicus Danicus. København. vol. 1, 1950+.

Published from 1950 to 1954 by the University Library, Scientific and Medical Department. Thereafter it appears as two of the monthly issues

of the *Danish Medical Bulletin* published by the Danish Medical Association. The *Bulletin* began publication April 8, 1954, as a monthly supplement to the *Ugeskrift for læger*. The index appears in English, with about six months' lag in coverage. It lists all medical books published in Denmark and all articles in Danish medical periodicals. Books and articles published by Danish authors abroad are included if acquired by the University Library. Material is arranged, with brief annotations, under 34 subject groups corresponding to the catalogues of the University Library. A cumulative subject index and an author index for the years 1954–1957 has been published. Prior to 1950 this index was issued on cards.

FINLAND

Medicina Fennica. Helsinki. [vol. 1], 1925+.

Published annually by Suomalainen Lääkäriseura Duodecim, it contains abstracts, chiefly written by the authors themselves and mostly in English, of literature published in Finland or published abroad by Finnish authors. References are grouped by a classified subject arrangement. A separate author index and a list of Finnish periodicals in medical and related fields are included. The index aims at giving a "complete" picture of the medical investigations by Finnish scientists during the period covered. Volume 30, 1958, was published in 1960 and contains 163 pages of abstracts.

GREAT BRITAIN

British Medical Book List. London. vol. 1, 1950+.

Published by the Medical Department of the British Council, this monthly list of recent British medical books, pamphlets, new journals, official publications, brochures, and reports from voluntary organizations is arranged alphabetically by author. Inclusion in the list is determined by the Medical Librarian of the Council on the basis of "requirements" of overseas readers.

GREECE

Bulletin analytique de bibliographie hellénique. Athènes. vol. 7, 1946+.

Beginning with volume 7, 1946, it is published in French by the Institut Français d'Athènes. Volumes 1–6 are in preparation. It contains a section for monographs and pamphlets and a separate section for periodical literature. The books and pamphlets are entered under broad divisions subdivided by disciplines. The periodical section is also classified, and entries are by name of periodical with bibliographical and historical detail,

followed by a listing of the contents of each number during the year. At the end is a complete author index. "Medicine. Surgery. Pharmacy," is a subdivision of "Sciences." Volume 16, 1955, gives the contents of 25 serial titles under the heading "Medicine." Volume 18, 1957, is the latest available.

HUNGARY

Magyar folyóiratok repertórium. Repertorium bibliographicum periodicorum Hungaricorum. Budapest. vol. 1, 1946+.

This index to Hungarian periodicals, including medical journals, was begun as a quarterly and is now published monthly, though somewhat irregularly, by the Országos Széchenyi Könyvtár. The entries are arranged by a decimal classification not in exact conformity with the Soviet classification scheme. Each issue lists the periodicals indexed, including numbers of the periodicals, and has an index of authors which is cumulated annually and published as a separate number. The list of sources given in the February 1960 issue cites 20 journals in medicine and related fields.

Magyar orvosi bibliográfia. Budapest. vol. 1, 1957+.

Published monthly by the Orvostudományi Dokumentációs Központ, each issue indexes medical journals and includes books, congress proceedings, dissertations, and medical material published abroad by Hungarian scientists. Arrangement is by broad subject groupings, and each issue has a separate author index. There is about a year's lag between the publication date of the material listed and its appearance in the index. The second issue of 1959 indexed 59 journals.

INDONESIA

Indonesian Abstracts. Djakarta. vol. 1, 1958+.

Published quarterly in English by the Council for Sciences of Indonesia, it aims to provide abstracts of current scientific literature covering articles of all fields of science. It is classified according to the Universal Decimal Classification, and includes medicine and related subjects. Four journals in medicine and related fields are regularly abstracted.

JAPAN

Abstracts of Japanese Medicine. Amsterdam. Vol. 1, 1960+.

This is published monthly by Excerpta Medica Foundation with the aid of a grant from the National Institutes of Health, Public Health Service, U. S. Department of Health, Education and Welfare, and in collaboration

with a Japanese editorial board headed by the Dean of University of Tokyo. The abstracts, prepared by experts, are selected from the weekly issues of the *Igaku chuo Zasshi*. Five to six thousand abstracts will be published annually. The first issue, October 1960, includes a list of 274 journals covered by the publication, with the full and abbreviated translated English title and the transliterated Japanese title given. The entries are classified within the major medical disciplines corresponding to the *Excerpta Medica* sections. Each issue has an author index.

Igaku chuo zasshi. Tokyo. 1930+.

This abstract of Japanese medical periodical literature appears irregularly with 7 to 9 volumes of 6 numbers each issued each year. Issues also have cumulative numbering. On the cover of a recent number there is a statement that the aim is to have 10 volumes during one year. Arrangement is by broad subjects, with 20 editors for the various fields. Within each main subject the references are arranged under detailed subdivisions of the subject. For example, under Internal Medicine, there are separate divisions for all parts and systems of the body. Entries vary from a mere citation, with title, author, and journal, to an abstract half a page in length, with the majority under one quarter of a page. All abstracts are in Japanese, even those of articles in English, where the title is given in Japanese only with a notation that it is written in English. English or German words appearing in the articles abstracted are used freely, however, within the text. Under each subject the literature cited is usually from three to six months old, occasionally older. Each number has at the end about four pages listing the latest literature, arranged by journal title, to be abstracted later. The index for each volume appears several volumes later as a special issue with its own cumulative number. It normally contains a list of names of contributors, an index of the pages covering the various fields, a list of corrigenda for the volume, an author index, and a subject index. The index number for volume 131 published on January 20, 1958, states that a total of 693 journals were abstracted during 1957, of which 75 were in European languages. Volume 155, June 13–July 13, 1960, has 5,423 abstracts, and lists 1,593 additional articles.

Japanese Periodicals Index. Natural Sciences. Tokyo. vol. 1, 1960+.

Prepared by the National Diet Library, this is an English edition of the monthly index to Japanese scientific journals. Each issue contains two parts. Part II: Medical sciences, lists articles from approximately 300 Japanese medical journals. Each issue indexes material received by the library in the previous month. A list of the specific journal titles indexed each month is included. Arrangement is by subject, and the language of

the article is indicated. The Japanese edition was first issued in 1948 and, until 1950, included the humanities section in one volume.

Japan Science Review. Medical Sciences. Tokyo. vol. 1, 1952-53+.

Published in English and edited jointly by the Scientific Information Service of the Ministry of Education and the Science Council of Japan this was an annual publication up to volume 6, 1958. Volume 6 is a semiannual publication; succeeding volumes are published quarterly. Volume 7, number 1, 1959, covers the literature of January through June, 1958. The review consists of bibliography and abstracts sections with references classified according to the Universal Decimal Classification system. The abstracts themselves represent the more important papers included in the bibliography section. Each year an average of 13,000 titles of papers appearing in over 260 journals are indexed from which approximately 800 items are selected for abstracting.

POLAND

Bibliografia zawartości czasopism. Warszawa. vol. 1, 1947+.

This index to the periodical literature of Poland, including medical journals, is published by the Biblioteka Narodowa, Instytut Bibliograficzny, and is patterned after the Soviet periodical index, *Letopis' zhurnal'nykh statei*. Material is listed under subdivisions of broad subject sections. There is a section for medicine and public health. Each issue has an index of key words, names (authors, places, and institutions), and a list of sources. A total of 827 citations on medicine and public health is given in the September-October 1959 issue. Begun as a semiannual publication, it is, since July, 1951, a monthly publication. No annual cumulative index is issued.

Polska bibliografia lekarska. Warszawa. 1925-26+.

Published since 1948 by Państwowy Zakład Wydawnictw Lekarskich, it arranges monographs and journal articles in one list by author and subject with separate lists of medical journals which have been indexed. The index was suspended from 1928 to 1937, and 1939 to 1944. It is now an annual publication, but not up-to-date. The volumes for 1955, the last published, index some 53 journals in medical and related fields.

Quarterly Review of Scientific Publications of the Polish Academy of Sciences, the Ossolineum, and the Polish Scientific Publishers. Series B, Biological Science. Warsaw. 1958+.

Published quarterly by the Polska Akademia Nauk, it supersedes in part the Academy's *Quarterly Review of Publications* (1955-1957), which in 1958

was separated into three publications, each covering a different subject field. It includes the publications of the Academy and its affiliated societies as well as the more important publications of other institutions. The references are classified by broad subjects such as "Medicine," "Microbiology," and "Parasitology." An author index is included in each issue. Bibliographic data, including contents of journal issues, and descriptive annotations for other publications are given in English. Titles are given in the original language followed by an English translation in brackets. Latin and Greek, however, are not translated. The languages of the summaries, if any, are indicated. Each issue indexes about five medical journals and lists a small number of reports and separate papers. The annual index lists references by journal title and issue number, and by title of paper in one alphabet, followed by an author index.

PORTUGAL

Bibliografia médica portuguesa. Lisboa. vol. 1, 1940-44+.

Compiled for the Instituto para a Alta Cultura, Centro de Documentação Científica, by Zeferino F. Paulo, each issue now covers a year and has a classed arrangement. Each volume has a separate author and subject index and a list of journals indexed. Over 100 periodicals are regularly indexed. Volume 12, 1956, published in 1957, is the latest available.

RUMANIA

Bibliografia periodicelor din Republica Populară Română. București. 1957+.

Issued semimonthly by the Biblioteca Centrala de Stat, and continues the *Buletinul bibliografic. Seria B: Articole si recenzii din presa*, 1954(?)–1956. This index to Rumanian periodicals, including medical journals, lists only the "important" articles. It follows the classification scheme of the Soviet periodical index, *Letopis' zhurnal'nykh statei*. Each issue includes a list of sources with abbreviations used. An author index is published quarterly. The fourth number for 1960 cites 121 articles in the section on medicine and public health.

Rumanian Medical Review. Bucarest. vol. 1, 1957+.

Edited by the Medical Publishing House and by the Documentation Center of the Board of Health, it is issued quarterly in English and includes summaries of selected articles as well as original articles and reviews of medical essays, textbooks, and treatises by Rumanian scientists. The summaries are long and often include tables, charts, and bibliographies. The material is arranged under broad subject headings such as "Internal Medicine." For each reference, the title of the journal, issue number,

and year is given, but paging is omitted. Neither author index nor list of sources is given. The publication is also issued in French under the title, *L'information médicale roumaine*. The first number for 1960 contains 27 long abstracts.

SPAIN

Bibliotheca Hispana. Sección II. Madrid. vol. 1, 1943+.

Published quarterly by the Instituto Nicolás Antonio, Consejo Superior de Investigaciones Científicas, Section II of the *Bibliotheca Hispana* is devoted to science, one of the sections being medicine. Until 1951, the publication contained two parts: Spanish authors, and foreign works. The foreign works section was discontinued in 1951, and the index now includes only monographic and serial publications with Spanish imprints. Each issue attempts to cover the periodicals received in the Biblioteca Nacional in the previous quarter. A list of periodical sources is included in each issue, and an annual author index is published. The first 1960 issue has a total of 617 entries for medicine, with brief abstracts of the material listed.

SWITZERLAND

Bibliographia medica Helvetica. Basel. vol. 1, 1943+.

Published by the Schweizerische Akademie der medizinischen Wissenschaften in collaboration with the Schweizerische Landesbibliothek, it is a comprehensive bibliography of publications with Swiss imprints or by Swiss authors. Volume 10-11, 1952-1953, published in 1955, is the latest volume. The Universal Decimal Classification scheme is used. A separate author and subject index and list of sources is included. Volume 10-11 lists 285 sources.

TURKEY

Türkiye makaleler bibliyografyası. Bibliographie des articles parus dans les périodiques turcs. Istanbul. 1952+.

Published monthly by the Turkish National Library, Institute of Bibliography, it indexes articles in Turkish periodicals, with special attention given to scientific and technical material. It is arranged according to the Universal Decimal Classification. Titles are usually followed by translation into French, or, in the case of articles from the few journals in languages other than Turkish, by Turkish translation. A prefatory note states that the Turkish National Institute of Bibliography is prepared to furnish microfilm copies, abstracts, or translations of articles cited. In

the third number for 1959, the section on medicine lists articles from 18 serial titles with a total of 153 entries. The majority of the entries are 1959 publications, but some 1956, 1957, and 1958 articles are included. An annual cumulative author index is issued.

UNION OF SOVIET SOCIALIST REPUBLICS

Abstracts of Soviet Medicine. Amsterdam. vol. 1, 1957+.

Published quarterly by Excerpta Medica Foundation with the aid of a grant from the National Institutes of Health, Public Health Service, U. S. Department of Health, Education and Welfare, and in collaboration with Soviet medical experts of the Academy of Medical Sciences in Moscow, it abstracts medical journals and a few monographic works. It is issued in two parts: *Part A: Basic Medical Sciences*, and *Part B: Clinical Medicine*. The abstracts vary in length from a few lines to a page and are usually signed, chiefly by Soviet experts in the field. No list of sources is given. The arrangement is by broad subjects. *Part A* of the first issue for 1959 lists 271 abstracts, and *Part B*, 1,181.

Letopis' zhurnal'nykh statei. Moscow. 1926+.

Published weekly since 1946 by Vsesoiūznaia Knizhnaia Palata, this is a classified index to Russian periodical literature and articles in symposia. A list of sources is given in each issue and is cumulated annually. An author index appears quarterly. There is a section on medicine and public health with 23 subdivisions. The number 19 issue of 1960, covering one week, includes 523 entries in the medicine and public hygiene section. Before 1938 it was published under the title of *Zhurnal'naia letopis*.

UNITED STATES

Recent United States Publications. Washington. 1957+.

Published by the National Library of Medicine, and inserted in the back of the *Index Medicus*, this monthly list of United States medical publications cataloged by the National Library of Medicine consists of reproductions of main entry cards, with price of publication added. The arrangement is alphabetical. Both monographic and serial titles imprinted in the United States within 18 months of the date of issue of the *Index Medicus* in which the entry appears are included. Prior to 1960, the list was inserted in the back of *Current List of Medical Literature*.

YUGOSLAVIA

Bibliografija Jugoslavije; članci i priloz i u časopisima, novinama i zbirnim delima. Serija B, Prirodne i primenjene nauke. Beograd. vol. 3, 1952+.

A bibliography of articles in Yugoslavian periodicals, it is issued irregularly by the Bibliografski Institut FNRJ and continues in part *Bibliografija Jugoslavije; članci i književni prilozi u časopisima i novinama*, now issued in three series. *Series B, Natural and Applied Sciences* includes medicine. It is classified according to the Universal Decimal Classification and includes an index of authors and a subject list of periodicals reviewed. Volume 5, 1954 is the latest available at the National Library of Medicine.

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An Internship

BY MAXINE KENNEDY

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IN THE early days of professional education, the apprentice system imparted required knowledge of procedures and techniques. In this day some correlation of training and experience would still seem to be desirable if the library school graduate is to be effective in his first position. The concept of an internship following school training is not new in the library field, even though the term internship is not usually associated with a library. In an article in the June 1941 issue of the *BULLETIN*, Colonel Harold W. Jones predicted the use of the Army Medical Library as a training institution, visualizing a postgraduate training course in medical librarianship for young graduates of library schools. Not until 1957, however, was such a training course established at the now National Library of Medicine. The program was designed to provide, through a year's special training for three participants, a broadly based work experience upon which an intern can build a career in medical librarianship. The internship promised many advantages to me as a newly graduated library school student in 1958, but at the same time it posed some uncertainty as to its functions and value. As it turned out, the program provided practical experience and an understanding of the many phases of a large library's program as well as an integrating of theory and practice.

The program began with a week's thorough orientation to the responsibilities and functions of the library, following an introductory tour of all work areas. The schedule was arranged so that in the twelve-month period there were three rotation periods of three months each to the Acquisition Division, Catalog Division, and Reference Division, with the remaining three months divided among the Office of the Director, the History of Medicine Division, and the Index Division. The intern took up, in each division, all the operations of that branch of library work. Professional rather than clerical duties were emphasized; at the same time, it was important to learn procedures themselves through practice and observation. In conjunction with this rotational schedule, the intern attended meetings of professional associations; he visited other libraries in the area; he attended meetings and seminars conducted by the Director and the Division Chiefs. The intern also read assigned material on medical and library subjects.

The three months in the Acquisition Division were efficiently organized to allow an appropriate amount of time to each section—the selection and searching work, ordering operations, and serials—for performing the pertinent duties. Special projects assigned to the interns were carefully chosen and well directed; these included an evaluative survey of book dealers according to the percentage of orders received, and the construction of a flow chart of the main operations of the division just prior to major organizational changes.

The period spent in the Catalog Division was arranged to permit study of methods of classification and subject heading, and to engage in the cataloging of monographs and serials, recataloging of the old collection, catalog maintenance routines, and card editorial processes.

In the time scheduled for the Reference Division, experience was gained both in the quick reference work and short bibliographies familiar to every librarian and in the more difficult problems whose solution requires time and a bit of creative imagination.

The seminar and visit program was as carefully planned and carried out as the more immediately practical portion of the internship. The seminars, which included other members of the professional staff, were both informative and interesting, particularly because they presented background information on policies underlying the functions of each division, and because they analyzed current projects such as the new subject heading authority list, the plans for the new building, and the new *Index Medicus* mechanized system of publication. The visits to other libraries, aside from being enjoyable excursions, afforded the opportunity to observe different administrative and organization patterns and provided new insights. As an intern I found the frequent individual conferences with the Division Chiefs, in which we discussed various problems or matters of policy, of great practical value in supplementing the actual work assignments. An over-view of the administration of the divisions brings into focus the relationships of the diverse functions within the Library which may not be immediately apparent while one is participating closely in the work of each division.

The planning of my internship program was of course greatly influenced by the experience the previous year with the first group of interns. Although carefully scheduled, the program was flexible to individual interests and circumstance. The program is now in its fourth year, and each year's experience has enabled the Library to smooth out some wrinkles, and to try variations in scheduling.

The intern has as an immediate gain from the program in an additional

year of planned study and a period of first-hand experience as practical preparation for his career. Clearly, it seems to me, there is no mechanism of greater value than the internship for providing a solid grounding in the essential tasks of medical librarianship, and for instilling a "confidence to perform" in its new practitioners.

Recataloging

BY M. RUTH MACDONALD

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GROWTH is an essential element of libraries just as it is an essential element of nature. Growth means change. Growth does not always mean an increase in size; it may represent a change in composition or in pattern. The growth of a library is usually determined by either or both of two elements: its acquisitions and its services. These elements, in turn, are governed by the library's purpose or purposes.

The purposes for which a library is established and maintained are bound to change. The changes may be deliberate, planned and directed by the library itself. They may be the result of a slow evolutionary process. On the other hand they may be sudden and compulsory, caused by developments and demands outside the library. In any event changes in purposes and services do occur and as they are recognized there usually is an accompanying recognition of related changes needed in the library's collections and their records. Such changes are encompassed in the term "recataloging," a word of low esteem in the library world.

It is interesting to speculate on the reasons for this unfavorable attitude toward recataloging, which is, after all, a part of library growth and development. Possibly the unfavorable attitude can be understood and accepted more easily when comparable situations in other areas are considered. For instance, anyone prefers to spend his time and money on new things, rather than on maintaining or renewing old things. This is as true in relation to the librarian's house as to his library's catalog. Whereas it is a pleasant task to determine the type of electrical wiring and the outlets needed in his new house, the rewiring required to modernize his old home (or to meet fire regulations) is apt to register as a nuisance and an expense. Another quite obvious reason for the general dislike of recataloging is closely akin to the common reaction to major change; it upsets the *status quo*. Although the end result of the change is greatly desired and will be much appreciated and admired, its accomplishment is disliked for the inconvenience it causes and the habits it disrupts. This is as true for rewiring a house as for revising a library catalog.

Recataloging is the result of some library change or development, not the cause. Therefore an integral part of any recataloging discussion is the

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cause or reason for it. Until the question "Why is recataloging needed?" is thoughtfully answered there can be no good answer to the question "What recataloging is needed?"

The subject "Recataloging" is particularly pertinent at this time because of the proposed revision of the *ALA Rules for Author and Title Entries*, 2d ed., 1949. The revision, which may become another Anglo-American code or even an international code, will, if accepted, force librarians to make some drastic cataloging decisions. In this paper I shall discuss some of the effects the new cataloging rules may have on the form and content of library catalogs, with emphasis on the catalogs of large libraries.

For the past seventy-five years the dictionary card catalog has been the form adopted by most American libraries. The term "dictionary card catalog" identifies the type of library catalog which presents all varieties of catalog entries in a single alphabet. The reasons given for its adoption include the flexibility of the card form, the convenience of the single alphabet, and the current completeness of the cataloging record. Its claims of inclusiveness and self-sufficiency have been greatly stressed and lauded by the chief users of the catalog—the library staff.

What is the current judgment on the dictionary card catalog? While it remains an effective tool for a small library, it is no longer an effective tool for a large library. The dictionary catalog can be an effective tool in a small library just because it is small. Its very size is an indication of the number of entries included, which number in turn places a limitation on the complications that can enter into its arrangement and alphabetizing. Immediately there arises a question as to the size of a small library. From the standpoint of the dictionary catalog, it is suggested that problems of size begin to be troublesome when a catalog contains card records for about 30,000 titles. Therefore, in terms of this discussion, a library ceases to be a small library at some point between 30,000 and 50,000 titles, the exact point of change being determined by the combination of the number of titles cataloged, the subject concentration of the collection, and the age of the catalog.

The dictionary catalog is not an effective tool for a large library because it is no longer flexible, its arrangement requires many alphabets and some classified sections, and it cannot hope to achieve the goal of "current completeness." While efforts made to achieve the goals of inclusiveness and self-sufficiency have not been successful, they have resulted in gigantism that aggravates all the card catalog's imperfections: lack of uniformity in entries; inadequate cross reference structure; subject heading problems; misfilings, and other errors of omission or commission.

The size, age, and complexities of the dictionary catalog have forced

it to become a conventional tool that cannot be responsive to new situations. It has grown so big as the result of continuing accumulations that it lacks the ability to be a modern catalog or to serve specialized needs. On the other hand it has taught its users a method for selecting new materials by searching for clean catalog cards—a method that sometimes tricks the users. Because of its size, maintenance is expensive and apt to be kept at a minimum by the pressure of needed new work. The difficulties the catalog users encounter and the cost to the library in housing the catalog present an urgent problem which cries out for solution.

Recataloging in the past has usually consisted of efforts to correct and improve the library's cataloging record. In only a relatively few instances has recataloging constituted a complete renewal of the catalog. In the future it is doubtful that any large library will undertake to recatalog its collections on the scale undertaken by the National Library of Medicine in 1946. Today, even the cataloging refinements of the past are becoming increasingly difficult and costly because of the catalog's accumulations and complexities. The result is a further weakening of its quality and reliability.

For at least two decades the pressures of increased acquisitions and ever expanding subject fields have stimulated catalogers to study and revise their tools and to devise new procedures. Unfortunately, a part of this effort has been wasted because there has been no comparable pressure in public service areas. The time is near, however, when this situation may well change as libraries begin to feel the increased demands that are expected to result from population increases.

Actually the proposed changes in cataloging rules are only one part of the whole pattern of change facing libraries today. Some librarians who are still active can recall supervisors who bemoaned inadequate library school courses that did not include instruction in library hand-writing, long after typewriters became commonplace. It took a whole generation to complete that change. Now, librarians must be ready to meet and cope with changes that come almost overnight. All this would seem to indicate that the time has come to discard the traditional and conservative concepts of the dictionary catalog and of recataloging in large libraries, for mere refinements are no longer sufficient. Furthermore, the proposed new cataloging rules present a challenge to librarians to shape new service patterns along with the new cataloging patterns that will free current catalogs and cataloging from the burden of the past.

The discussion of the new cataloging rules within any library or group of libraries should include representation of all work areas. Such joint efforts are mutually educational; they insure understanding, even though they may not insure acceptance by all members of the group. They also

provide a means for safeguarding the needs of all work areas. For instance, library-wide participation will guard the information the staff must have to insure correct title searching, although the searchers may be required to use printed lists or other sources to supplement or in part replace the card catalog. Another reason for a joint approach to the new rules and the changes they imply is the importance of the personal element in recataloging. Probably the best way to avoid unnecessary changes and to insure essential changes is a full and free discussion of the whole situation. No amount of recataloging can by itself accomplish the major changes needed; it must be supplemented by similar changes in work habits and attitudes.

Instead of the old piecemeal approach to recataloging, a modern approach would be to study the whole catalog in the light of current and foreseeable needs, keeping in mind the advances in technology that are rapidly coming closer to meeting library requirements. Such an approach to the dictionary catalog will necessarily include a study of its subject headings and subject cross references neither of which is directly related to the proposed revision of the cataloging rules. Although a catalog study limited to the entries related to the revised rules would constitute a task of considerable magnitude, it is still suggested that the proposed rules provide a timely incentive to study the whole catalog.

What are some of the catalog changes which will result from the proposed revised rules? (It should be noted here that the changes will vary somewhat in different libraries because it is expected that alternate rules will be provided for small and popular libraries.) Three of the proposed major changes are:

1. The literary unit rather than the bibliographical unit will become the basis for cataloging (*i.e.*, all editions of a work will be cataloged under the original title). This principle has already been accepted and used in cataloging the works of voluminous and classic authors through the device of the "standard title." Even though this change may be adopted by agencies that sell printed catalog cards, the cards could easily be converted to old style cards (by drawing a line through the original title which will appear as the "standard title" following the author entry) and thus be useful to libraries preferring that form.

2. The entry for an institution or a society will be made under the direct form of the name (*i.e.*, University of Washington, rather than Washington (State) University). This principle has previously been accepted for certain types of organizations with distinctive names, such as Washington University, St. Louis. This proposed change raises a question about Cutter numbers that have represented place or government unit. There is no one answer to this question. A library may decide to retain the old Cutter numbers for new publications because this would keep all the pub-

lications together on the shelf list and thereby provide a geographical approach. Should a library decide to adopt the Cutter number for the new form of entry the old and new publications may be tied together in the shelf list and on the shelves by the simple expedient of directions cards and shelf dummies.

3. A corporate name that has changed will be used in the form current at the time the item being cataloged was published. This is a complete break with the traditional plan to enter all publications under the latest form of the name. Some libraries have already adopted this rule for changed corporate names, notably the National Library of Medicine which has applied the rule since 1946. This change is a very desirable one for it will free current cataloging from the increasing burden of changing entries for old publications and will preserve the integrity of bibliographical citations based on information in the publications.

Any desire to revise present catalog entries to conform to these principles using traditional procedures would be too time-consuming and too expensive to be taken literally. The amount of recataloging involved would make chaos out of the dictionary catalog and at the same time curtail the cataloging of new material.

Recataloging can be achieved through an almost infinite variety of procedures of different levels and degrees. It can be accomplished, or avoided, by a sorting and rearrangement or a weeding of records, or both. It can be a mechanical procedure or a highly intellectual one. It might be effected by a decision to let past records remain as they are and to concentrate time and efforts on future records. How, then, can the proposed changes in cataloging rules be implemented without causing an immediate and gigantic upheaval?

It seems reasonable to suggest that in attempting to deal with the problem of the large dictionary catalog and the proposed changes in cataloging rules, the old edict "divide and conquer" presents the best approach. Even the application of this edict offers a wide variety of choices. Because cataloging consists of choices determined on the basis of a code of rules, choices on the form of the instrument to present the results of cataloging are an inseparable part of the whole process. For example, on the date set for the application of the new rules a new catalog could be started. The date could be arbitrarily set as the cataloging date or could be a more flexible combination of publishing and cataloging dates. The new catalog could be in dictionary form or it could break the traditional pattern and be a divided catalog. A new dictionary catalog could be more truly alphabetical dispensing with all possible subalphabets and classified sections. A new divided catalog offers many choices of form, inclusions, and arrangement.

In considering whether the new catalog should be a dictionary catalog

or a divided catalog, a very homely comparison can be studied: the telephone directory. The directory is issued in two separate parts, the alphabetical name section and the classified section. Either part may be reissued without affecting the other. The two sections are equally available, yet there is little problem as to which should be used for a particular question. And sometimes one section is used to supplement the other. In their divided form they are quite simple in form and easy to use. If the two sections were combined into a single alphabet the resulting directory would be clumsy in size and complicated in arrangement. In other words, a combined telephone directory would present some of the problems of the dictionary catalog.

This is a good place to insert a brief statement on the divided catalog which is a good form of catalog for both large and small libraries. Any card catalog that occupies, or will occupy, more than one catalog drawer may be a candidate for divided catalog status. There is one paramount consideration in planning for a divided catalog: the basis on which the division will be made. This decision is of paramount importance to the makers and the users of the divided catalog because there are so many possible ways to divide the three major categories of catalog cards and their related cards. Any division and combination of the cards that fits the local library's needs can be adopted. Whatever plan is adopted must, however, be strictly adhered to by the catalog makers and be well publicized so that it will be understood by the catalog users.

The two-part divided catalog in the National Library of Medicine may be cited as an example of one type of division. The Name Catalog contains all "name" entry cards (*i.e.*, authors, editors, series, titles, and names used as subjects). The Subject Catalog is strictly a "subject headings" catalog. In each drawer of the two catalogs there is a printed guide card on colored stock which defines the scope and arrangement of the file.

An important decision in planning a new catalog is to leave the old catalog "as is" for the time being. Some exceptions will be expected, such as a decision to transfer cards for certain types of books or for publications of certain dates to the new catalog. Another exception will be the insertion of printed directions cards designed to bridge the changes in forms of entries used in the old and new files. It may be desirable to compress the old catalog cards into fewer trays to provide space to house the new catalog. Or it may be desirable to expand the old catalog into additional drawers in order to permit cards in corresponding sections of the alphabet of the old and new catalogs to be placed in the same drawer. Such exceptions are minor, however, and need not confuse the overall decision to leave the old catalog intact for the present.

The postponement of decisions relative to the revision, reorganization,

or replacement of the old catalog should have salutary effects on the catalog makers and users. Preserved in its present form it will supply the same help as always. It will probably be preferred by its users until the new catalog is of a size that wins them away. When that time comes they will more readily participate in making plans for the disposal of the old catalog. Another reason for postponement is to give the new catalog and cataloging rules time to become established so that the catalogers will be better able to cope with the old file. A pertinent reason for delay is the development of technological devices which will surely produce the means to help librarians dispose of the old files in ways that will insure their future satisfactory use. And, last but not least, the delay will afford time to re-evaluate library collections and time to plan any needed weeding of superseded editions, out-of-scope and duplicate copies. Such re-evaluation might even be done regionally and co-operatively rather than on a strictly individual basis.

When the time comes to deal with the old catalog the primary task should be to identify the part of the file that is essential for the future use of the library's materials. This part, which will probably include the main entries, titles, secondary entries, and series cards, may be preserved as a separate card file until it can be economically reproduced in book form or in some other more modern form. The remaining old catalog cards can then be studied in the light of their age, condition, frequency of use, and duplication of information elsewhere available. After discarding as many as possible, the remaining cards can be retained pending their reproduction in some economical and usable form. The disposal of the old catalog will set the pattern for periodically converting the new card catalog or catalogs to another form while still another "new" catalog is begun.

Putting the library's basic tool into a compact form will do more than solve the problems of dictionary catalog size and complexity. The method will provide better access to catalog information through multiple copies and will take care of the demand for catalog information in outside locations and new branches.

Furthermore, the practice of periodically retiring the card catalog will lead to a compartmentalization of the catalog and the collections by date. By this means the record of each period will be preserved in the form and language of the period and thus the need for large-scale recataloging will be eliminated.

The big problems that can be foreseen are those of personnel and work habits. The staff has prided itself on supplying rapid replies to questions of the sorts the traditional catalog has answered, and thereby has created an expectation for immediate service. The curtailment of the card catalog's coverage and the need to supplement it by earlier catalogs and bib-

liographies will often cause the staff to use more than one record and therefore require more time to answer "catalog questions." Even though a library's several catalogs, indexes, and bibliographies may differ in form and arrangement and may be uneven in the consistency and dependability of their records, they can serve adequately to indicate location of materials. It must be admitted that poor records, whether due to incompleteness or inaccuracy, serve poorly for replies to bibliographical questions. The old records in whatever form will remain as good as, and no better than, they were in the old catalog. In spite of such practical problems the staff will adjust to the changes if the need for them and the advantages they offer are understood.

The decision to have a new catalog cannot be lightly made because it is a decision that will be costly in time, equipment, and service. It is a decision which can be encouraged on the basis that it would be less costly than the wholesale recataloging required to renovate an old catalog, which would still contain all of its former problems of size, age, and complexity.

Librarians can approach the future in either of two ways. One way is to cling to the traditional patterns and accept only the changes that are essential. The other way is to welcome the opportunity to modernize their collections as well as their catalogs and to educate catalog users to understand and accept the modernization. If the big changes are accepted, it is possible that the term "recataloging" in the future may be more acceptable as it will come to mean the ordinary day-by-day adjustments required to fit new acquisitions into the collection and the catalog. The word, "compartmentalization," will designate a new and affirmative approach to the overhaul jobs which the term "recataloging" once implied.

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Comprehensive Collecting— Then and Now

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THE year 1836 may mark the beginning of the Library of the Surgeon General's Office, but the explosive growth that transformed it into a national library did not start until after the Civil War. In the late sixties comprehensive collecting was accepted as a policy; despite some lapses in performance it has been accepted in principle ever since. In what follows we suggest some of the main and immediate circumstances that brought the policy into being, describe briefly the results of the policy over the years, and then attempt to say what social needs today sustain it.

I

The historical record permits us to speak of the nationalizing of the Library as a personal achievement. It is highly unlikely that the Army Medical Department would have brought this about had it not had the good fortune to draw to itself a man of towering vision, intellect, and character. But of course no achievement of this magnitude, at least in a democratic society, is possible except in what may be termed a climate of willingness. The personal achievement consists in moving other minds that are receptive, in mobilizing forces that are ready and waiting to be mobilized. The mind of the Agent in such a situation represents in itself a kind of distillation of social forces; it is part of what is moved as well as mover.

In readying the social forces a century ago, the War was of course of immediate impact. It was natural that the War, the great maimer and corrupter of bodies, should give rise to the great handmaiden of healing, the Library. But something in addition (apart from the Agent) was required; internationally there was the accelerating advance of medical knowledge, and this was especially notable in the field of pathology. There was surely

a connection between the Virchowian researches and publications¹ and that Circular of 1862 whereby officers in the Union Army were directed to forward to the Army Medical Museum "all specimens of morbid anatomy, which may be regarded as valuable. . . ." Nurtured by the Museum, there followed the *Medical and Surgical History of the War of the Rebellion*.²

In the immediate aftermath of the War, the Museum and its projects for awhile seemed to be a chief preoccupation of the Surgeon General's Office. The first job assigned to John Shaw Billings (ex-battlefield surgeon and hospital administrator) was to analyze field reports for the *History*. This brought him close to all aspects of that great recording effort, and, what was most important, the association involved the fruitful sharing of interests and enthusiasms (such as microscopy, specimen-mounting, dissection, craniometry) with other members of the branch, notably Otis, Woodward, and Woodhull.

In the minds of all these men we can be sure that the word *museum* had little of today's popular meaning, epitomized by the glassed-in case of curios, and much of the broad Alexandrian sense of "place of learning." It is also important to note that *medical* was used with a meaning broader than that of curative medicine. That is, so essentially new and newly developing was all biological investigation, including the biology of man, that medical training constituted its main scholastic portal, and the physician, or at least the medically trained man, was the most likely person to pursue it. Some of the investigations were immediately contributory to the science of healing; some reached out into areas that became great disciplines of lesser medical relevance. Craniometry (a great concern of the early Museum) is an example of the latter.

The relation of Museum to Library, as we see it, had its importance in that the war-born Museum possessed national stature and broad interests from the start, and its very existence made it easier and more natural for Billings to chart his own project as a national institution and one of broadly biological scope. The concept of scope sometimes led Billings into subject areas that we now feel obliged to exclude, but at the time it did ensure the inclusion of the basic and immediately supporting disciplines; it ensured comprehensiveness.

The important and obvious difference between the sibling institutions was one of basic mandates. The Museum looked back to the War which had given it birth and was furnishing it with what must have seemed at

¹ Notably *Archiv für pathologische Anatomie*, beginning 1847, and *Cellularpathologie*, 1858.

² Published from 1870 to 1888 in six huge volumes. The British and French reports (1858 and 1865) of the Crimean War of course inspired and, one must add, demanded the effort over here to report the much greater carnage of the American conflict.

the time its full and substantially final store of "accessions," the specimens and the field records. Foreseeably its main reason for existence was to put in order, rationalize, describe, and display this material in the interests of medico-military history. The role was finite, or so it seemed.

Billings' self-imposed mandate, to collect, organize, and make available the world's medical literature, had boundaries which, if not infinite, were remote and uncertain. Billings himself evidently may not have realized, or was late to realize, the full dimensions of his creation. There is reason to think that he viewed his undertaking as indeed stupendous, but hardly capable of ever threatening to reach unmanageable proportions. We recall the limit of five volumes he envisaged for the Second Series of the *Index-Catalogue*,³ and also the somewhat extravagant inclusion of separate entries for article reprints throughout the work, almost as if filler were needed.

As has been pointed out by others, the indexing did take on monstrous proportions. The collecting is another matter, and that is our main concern.

II

Billings' transmittal letter to Volume XVI of the First Series of the *Index-Catalogue* (June 1, 1895) stated that the Library contained 116,847 books and 191,598 pamphlets, adding that "it is to be observed that practically all of them have been obtained within the last thirty-five years." This averages out to some 8,800 items a year. The accomplishment is astounding when appraised in the light of what we know of the multifarious activities of the Library's two principals; among these were the routine duties of reference work, loans,⁴ and indexing, in addition to inspecting hospitals, compiling dictionaries, writing books and articles, planning buildings, moving the collection, and attending congresses and other meetings.

The acquisition, processing, and recording of published material were squeezed into this prodigious schedule. It is clear that the two "professionals" worked much more than eight hours a day.⁵ Too, some other members of the staff (fourteen in 1878) may have had or may have developed skills and abilities far beyond those their lowly rank might indicate.⁶

³ SCHULLIAN, DOROTHY M. AND ROGERS, FRANK B. *The National Library of Medicine*. Lib. Quart. 28: 102, 1958.

⁴ "Loans went direct to physicians on payment of a deposit fee, which was returned when the book was again safely on the shelf. In 1884, two thousand letters were written in response to requests for medical information." SCHULLIAN AND ROGERS, *Op. cit.*, p. 97.

⁵ For example, the "clothes baskets" of journals Billings indexed at night. SCHULLIAN AND ROGERS, *Op. cit.*, p. 15.

⁶ Note the personal acknowledgements in *Index-Catalogue*, 1st Series, Vol. 16, p. v., and 2d Series, Vol. 21, p. vi.

Certain operations today considered essential were omitted—call numbers, multiple subject headings, public catalog maintenance. At the beginning (but only at the beginning) acquisition work had the advantage of a low searching cost because of the small holdings to be checked.⁷

Notices in the original *Index Medicus* may have done much to bring in the crop with small effort. These notices are of special interest in that they not only solicited gifts from publishers and authors, but also carried instructions to the prospective donors abroad to send material in care of specified dealers in London, Amsterdam, Paris, Leipzig, and St. Petersburg. All these may be assumed to be the dealers from whom material was also purchased. This unusual participation by the dealers strongly suggests a high degree of dealer responsibility and dealer interest. It is also probable that serial acquisitions were in great measure actual or virtual exchanges and hence of the mailing-list type, and that the purchase lists were not plagued by present-day bid and other regulatory requirements.

In the process of nationalizing the Library, Billings and Fletcher internationalized the collection. It was, however, mainly a western-world collecting job. An examination of author entries in extensive segments of the *Index-Catalogue* shows that about 5 per cent (it is somewhat higher for serials) were of Eastern European origin and that practically all the rest came from Western Europe and the English-speaking world. The complexion of the "take" was representative of the medical literature-producing world of that day. For commercial book-size items originating in Western Europe, England, or America in the nineteenth and twentieth centuries the proportion acquired of the whole product seems to have been about 95 per cent. The proportion for pamphlet material was much lower.

The inundation continued; by 1916 the Library contained 224,522 volumes and 337,120 pamphlets; in 1932 the count of holdings was reported as about 380,000 volumes and a half million pamphlets; a tally-estimate of 1960 gives 531,000 volumes, 445,000 pamphlets.⁸

This, at various points in the Library's history, was the result of the comprehensive collecting ideal. Even when the budget allowed was lamentably inadequate, the ideal was striven for. From the Survey Committee of 1943-44 it received confirmation and reinforcement.

III

Let us state briefly and in general what we mean by comprehensive collecting in medicine. We mean that for one central collection we should ac-

⁷ In this connection it is of interest that the recataloging program has turned up numerous nineteenth century duplicates in the collection.

⁸ This decrease in the figure for pamphlets may be explained in two ways: (1) the earlier estimates were not made accurately; and (2) the category "pamphlet" previously included single-article reprints, a type of publication which the Library has since withdrawn.

quire a copy of every procurable publication the subject matter of which falls in (1) certain core areas, *viz.*, the practice of medicine, the practice of surgery, psychiatry, dentistry, nursing, hygiene, epidemiology, and the history and biography of these; and in (2) the immediately supporting disciplines of pharmacy, pharmacology, physiology, pathology, human anatomy, microbiology, parasitology, biological chemistry, and the history and biography of these. Furthermore, the policy expressly includes nonstandard (*e.g.*, chiropractic, acupuncture, healing by the laying on of hands) as well as standard explanations of disease, and it includes works written not only for practitioners and research workers but for anyone with any interest in these subjects whether the interest is cultural or utilitarian.

As long as we adhere to the principle of the "publication" and the "subject" we can re-define the policy in many ways and still remain comprehensive by any reasonable interpretation. What the policy cannot tolerate is the serious intrusion of value criteria. Once we say of a publication falling in any of the core or immediately supporting subjects that we will refrain from acquiring it because it lacks soundness, it is aimed at the wrong set of readers, or we already have or can get a better work on the same subject—at that point the policy ceases to be comprehensive.

We attempt to keep comprehensiveness reasonable. For one thing we have reviewed our medical interest in a few large subjects that once were accepted as within the Library's comprehensive scope and have ruled them out for routine collecting. Noteworthy are general census reports, geographical and cultural anthropology, and belles-lettres. We are in general critical of small pamphlet materials, admitting only what we consider historically representative or currently useful. Drug house advertising in leaflet form, for example, we reject entirely. Some mimeographed and similarly processed material is kept out because it lacks coherence or because it is of such format and substance as to elude reasonable effort toward its preservation. We keep almost nothing that is textually duplicative, such as reprints from journals or reprinted books. Abstracts we keep only as they are gathered together and as they are comprehensive of entire specialities. We collect translations only if into English or from a language of unusual difficulty into a familiar language, although exceptions are made for works of classical stature.⁹

After making a number of such modifications we still call our collecting comprehensive. The case for comprehensive collecting rests on three main arguments. First, if one library collects and preserves fully in a well de-

⁹ The Library, of course, must also acquire strong *reference* collections in numerous other subjects such as chemistry. A more expansive statement of the Library's collecting policies is presented in "The National Medical Library: Acquisition policy", by Samuel Lazerow, in *BULLETIN* 42: 447-453, Oct. 1954.

finer field, other libraries, regardless of size, can accordingly adjust their collecting and withdrawal activities. Second, the indexing and cataloging of medical literature is most effectively accomplished by one institution having the literature closely under its control. And, third, comprehensive collecting is a requirement for the preservation of the history of civilization.

The first of these arguments may seem somewhat less axiomatic in 1961 than it did in 1872 when the *Catalogue* of the Library published that year included in its prefatory "Memorandum" the observation that "in all the public medical libraries of the United States put together, it would not be possible to verify from the original authorities the references given by standard English or German authors . . ." and "No complete collection of American medical literature is in existence, and the most complete, if in this country, is in private hands, and not accessible to the public." Today, of course, a number of large medical collections other than that of the National Library of Medicine have been assembled, and it is likely that in any region works of most standard western authors are available. But a new disparity, of disturbing proportions, in accessible literature appears now in the product of countries other than those of Western Europe and the English-speaking world. How many libraries will feel obliged to acquire as a matter of course a new Rumanian monograph on arteriosclerosis, one on tuberous sclerosis from Prague, or even the 80 medical journals from the Soviet Union?

The union catalog has been advanced as an adequate substitute for centralization of holdings. But a union catalog can tell us only what a certain group of institutions have happened to acquire. There is little comfort in learning that a desired publication is *not* represented in all America and to find in addition, as is usually the case, that it is out of print as well. Obviously, what a union catalog demands as a supporting device is co-operative comprehensive collecting. There is such co-operative collecting in full swing and extending itself into new areas. We have no wish to criticize such endeavors. But two points must be emphasized: first, the enormous convenience of having one institution to turn to directly for the unusual item; and second, the impracticability of breaking up large, complex fields of knowledge into smaller, mutually exclusive areas of collecting concern.

The expected infrequency of use which makes a book at time of publication the proper and sole responsibility of the central comprehensive collection derives from the fact that the book is in an unfamiliar language, or that its subject is of little current interest, or that it is written from a currently unorthodox or nonstandard point of view, or a combination of these and other factors. It is obsolescence, however, that is finally the great

and universal leveler. Few libraries can afford to retain superseded works, no matter how essential they were when acquired. In the case of those that are rarely consulted, it should be sufficient that they be made available from a central repository.

Our second argument recognizes the fact that centralized indexing derives logically from centralized collecting. For almost a hundred years the Library has provided author and subject keys to its collections, first through the *Index-Catalogue* and more recently through the new *Index Medicus* and the printed *Catalogs*. The production of such monumental catalogs and indexes as these has certainly been facilitated by the fact that it is carried on within the institution that directly acquires and houses the publications cataloged and indexed.

Of first importance here is the prompt and easy access to the material for screening purposes. The editor of the *Index Medicus* may and does examine every serial title newly acquired by the National Library of Medicine; this is possible because the Library's collecting and indexing activities are under one administration and in the same building. Management gains result from short lines of communication, and the advantages of large-scale production are found just as certainly in data processing as in the manufacturing or processing of more tangible goods. The availability of large masses of materials makes feasible, at the same time it makes imperative, the introduction of advanced indexing and sorting methods.

Our third argument, which recognizes as an important purpose the preservation of the record of civilization, cannot be based solely on specific uses, simply because not all future uses can be predicted; much better to admit at once that what we are doing is rationalizing an instinct. The instinct is that of "time binding" (Korzybski's phrase is unavoidable), and it pervades everything human. We are a peculiar species in that we can never confine ourselves to a narrow present; our "present" embraces in greater or less degree (depending on individual mental makeup or immediate circumstance) components of past and future. Everybody cherishes the past in some form or to some extent. The urge gives rise to a hunger for data, be it a picture of grandfather in his youth, or an account by a contemporary of bread-making in ancient Rome. Motives and tastes may differ, but the hunger remains.

It cannot be our purpose here to justify the uses of medical history, but we should keep in mind the rich potentialities of medical literature simply as social history. For example, household doctor books of different periods or reports of mental hospitals ("insane asylums") significantly document changing manners and attitudes. We may expect an increasingly intensive exploitation of large library collections by journalists, sociologists, his-

torians, and novelists. Medical books have a special contribution to make because the data of medicine bear more intimately on personal and individual preoccupations than do those of other fields of technology and science.

But uses are so varied and so individual that we should be reconciled to anticipating *any* use. The singling out of some as worthy and legitimate and others as not so favored is an exercise in snobbery. Ultimately, any defense of the cultural must rest on the right of the aforementioned "instinct" to whatever it finds significant.

IV

The desirability, or the social acceptability, of comprehensive collecting rests not only on the values it produces but also on its costs. That is, these costs must be recognized as bearing a relation to other costs of government and of society.

From 1870 to 1884 the Library's procurement costs ran to about \$6,500 a year, and from 1885 to 1918 averaged about \$10,000 a year. The man-hour costs of the acquisition activity could hardly have exceeded \$3,000 annually. Probably an annual \$6,000 represents the cost of the *Index-Catalogue* as exchange currency. Thus we have an annual average of about \$18,000 for the acquisition effort up to World War I.

The costs today are impressively greater. First there is the allotment for purchased material of \$85,000. Another \$15,000 represents the cost of the outgoing exchange material, including the expensive *Index Medicus*. The man-hour costs can be roughly figured at \$90,000. Our present annual total then is \$190,000. For this money, of course, we get much more material. Annually, we add some 70,000 serial pieces and 12,000 monographic items.

The costs we have cited have meaning only as we relate them to other costs of government or of society in general. The Budget of the United States Government itself probably offers one sound frame of reference. The budget of 1890 was \$318,000,000 or 17,600 times the amount estimated as the cost of acquisition in that year. The 1960 cost of \$190,000 must be multiplied by more than 415,000 to reach the figure for the 1961 budget, which is \$79,000,000,000.

At this point we might logically try to relate our costs to the Federal costs of medical research. But we have at hand only the current costs, notably the \$400,000,000 allocated in 1961 to the National Institutes of Health. Government-sponsored research existed on too small a scale in the last century to be isolated as a budgetary item.

In the entire national economy an important and basic cost item is the amount paid out in wages and salaries in the production of goods in manufacturing. In 1889 the total is computed at \$2,209,000,000, which is 122,700

times the \$18,000 acquisition figure of that period. The 1957 figure (the most recent available) for wages and salaries is \$79,354,000,000. Into this our \$190,000 will go 417,650 times. It is interesting to observe that the disparity in the case of the employee-cost figures is much less than that of the budget figures. Of greater interest, however, is the relation of the acquisition *employee costs* alone, used as divisors, to this pair of national employee-cost figures. For then the disparity between the quotient for the early period (736,333) and that for the later (881,710) becomes even smaller. This small difference is to be expected if we assume a roughly parallel progression over the years between the production of published material and the production of all manufactured goods, and also a parallel progression in the cost of handling such products at any given point.

The gross disparity found in the case of the comparisons with the budget figures reflects the fact that the federal government buys a much greater share of the nation's working time and of the national product nowadays than it did in 1890, an increased expenditure required mainly for the purposes of social welfare, scientific research, and defense (including space exploration).

One thing our figures suggest is that the growth of the printed record is not *peculiarly* cancerous. Wildly accelerated growth is a universal phenomenon in the industrially developed world. There is more and more of everything—people, dollars, goods, communications, movement to and fro of people and goods—more of everything except space and time. The future may indeed be dreadful to contemplate, but not for librarians alone.

The collecting and preserving obligation need not be pursued as a matter of fanatical totality. Some items will unavoidably escape any dragnet. Attrition of the store, if of a reasonably low order, will have to be regarded with equanimity. But in the light of considerations of present and foreseeable costs there seems so far to be no basis for deliberately suppressing the acquisition of printed items of any textual substance. All that is required is that one copy of each be obtained to enter into the common possession of 180 million people whose affluence is unprecedented in all history, who cannot only afford, but whose physical and cultural well-being demands, a collection of medical literature of equally great dimensions.

Adams Jewett and John Shaw Billings, Partners in Acquisition

BY DOROTHY M. SCHULLIAN, PH.D.

*Chief, History of Medicine Division
National Library of Medicine*

IN THE spring of 1872 a young man of Dayton, Ohio, received from John Shaw Billings a request for assistance in furnishing missing issues of "Western" medical journals to the Library of the Surgeon General's Office. Clearly some clerk had slipped, for Henry S. Jewett had obtained his M.D. degree from the University of Michigan only two years before and was scarcely of an age to have accumulated on his shelves long runs of early medical journals. He had, however, a physician father who not only rose to this occasion but also went far beyond it to procure early books for the fledgling library and to offer sound advice to its ambitious librarian.

Adams Jewett¹ had been well trained in both the liberal arts and medicine, and in 1872 he was in his fourth decade of practice. Son of the Reverend Luther and Betsey Adams Jewett, he was born at St. Johnsbury, Vermont, on July 26, 1807, prepared for college at Moor's School in Hanover, New Hampshire, and was graduated A.B. from Dartmouth College in 1827. He had qualified for Phi Beta Kappa the preceding November, was a member of the local literary society called Social Friends, and at the commencement exercises delivered an oration in English entitled "The Present Devotedness of Genius to the Amusement of the World." In 1827 he took up teaching at Mobile, Alabama, and from 1831 to 1833 was pro-

¹ For biographical material on Adams Jewett and Henry S. Jewett I am grateful to the granddaughters of Adams Jewett, Mrs. Charles R. Frazier of Winesville, Ohio, and Mrs. Horace F. Lunt of Denver, Colorado; Mrs. Ethel G. Martin, Archivist, Archives Department, Dartmouth College Library, Hanover, New Hampshire; Harold M. Wilson, Secretary, Class Officers Council, The Alumni Association of the University of Michigan, Ann Arbor, Michigan; and Robert F. Freeman, Executive Secretary, Montgomery County Medical Society, Fidelity Medical Building, Dayton, Ohio. Their letters have furnished information which supplements that already published in George T. Chapman, *Sketches of the Alumni of Dartmouth College*, Cambridge, 1867, and Samuel W. Butler, *The Medical Register and Directory of the United States*, Philadelphia, 1874. Other material cited or quoted in this article is from the archives of the National Library of Medicine. References to letters by John Shaw Billings are to drafts, usually in his own hand.

fessor at Spring Hill College, a Jesuit institution which still flourishes there. At Mobile also he began the study of medicine with Dr. Thomas Casey, a step which led to further study in Paris and in Edinburgh, where he received the M.D. degree in 1838 from the Royal College of Physicians and Surgeons, and to the setting up of practice in Mobile in the same year. On July 3, 1841 he married Mary P. Smith of Lancaster, Massachusetts, and in 1842 he transferred to Dayton, Ohio, where we find him in 1872 at 24 North Jefferson Street.

It was a well rounded career, and especially in Europe he apparently made an acquaintance with old books and libraries calculated to render him at once receptive to the acquisition efforts of Billings. Certainly even in the Alabama period, as autographs now in the National Library of Medicine show, he was procuring early medical books for himself, and he continued the building of his own library throughout his life.

The partnership had as its cornerstone early American medical journals. For Billings was trying, as he wrote to another physician,

to form a great National Medical Library . . .—a work of great labor—which I am satisfied can only be done under Government Auspices. We have now about 18,000 vols.—on iron shelves in the fireproof building of the Army Med Museum. Catalogued and open to the profession—and it is now on a proper basis as the Medical Section of the National or Congressional Library. I want to make it as complete as it can be made and the great difficulty of course is to get old pamphlets—and to complete our files of journals. These I can only obtain by the personal aid of physicians who may be willing to part with them in consideration of the object for which they are desired. May I ask your aid in the matter? not merely in the way of personal contributions but that you will try to induce others who have old pamphlets or journals to deposit them here where they will form part of a monument that will last so long as the nation does.²

It was in response to a letter of this tenor, mistakenly addressed to his son, that Adams Jewett sent a list of the journals which he himself could furnish and formulated, in the stenographic style which characterizes his letters and which immediately divulges the practical turn of his mind, his correspondingly practical scheme. "Of course," he wrote,

y are laying the foundaⁿ not merely of an American Med library but of a universal library of med wh shall enable the med historian to mk a history of med from the earliest times and in all countries, so far as this sh b practicable. If such is the scope, as I take it t b, you embrace every opportunity of gathering up books out of print and not t b found regularly on the shelves of the booksellers. I have somethg of a number of such in English & in French wh I w^d part with for the National Med Library, if I h any wh h nt bn procured from elsewhere. I nev thot of trying to sell them—indeed, years ago,—before my son studied med—I provided in my will that all such sh^d b *given* to my alma mater, Dart Coll, thinking tht placed in a permanent accessible place they mt be of some use, whereas scattered abt they w^d amt t absolutely nothing. Now that

² JSB to Dr. A. W. Woodhull, Newark, New Jersey, May 13, 1872.

my son hs studied medicine I think it mt b advantageous to him t exchange any of the old books wh mt be wanted in the pub library for modern works of value not in my library. If therefore it is desired t make any such exchange in reg^d to *books* as you proposed in the letter to m son in reg^d to *Journals*, you cn let me kn & I w send y a list of some works out of print tht I w^d b willg t dispose of in tht way.³

Journals therefore were to be donated, old books to be exchanged for new ones, both his son and the Library of the Surgeon General's Office benefiting in the process. The time was short until his death in 1875, but in these few years the cornerstone of journals was built upon with a superstructure of early books and sage counsel, and to Adams Jewett, hitherto overlooked in the history of the National Library of Medicine, must now be accorded the recognition which is his due.

He labored assiduously, with a verve which belied his years and a munificence in the expenditure of his time which leads us to infer that he had already handed over to his son some part of his professional practice. For works from his own library—a Benjamin Bell, a Laennec, a Sydenham⁴—he received in exchange, for the library which was to further his son's professional career, the current publications of the Surgeon General's Office or editions of contemporary authors which Billings chanced to have in duplicate. But he went almost immediately beyond his own shelves, as opportunity and occasion offered, to comb those of other physicians whether in Dayton, elsewhere in Ohio, or out of state. His brother Luther died in Lafayette, Indiana; on May 27, 1872 he duly dispatched to Billings issues of medical journals discovered there. Dr. Joshua Clements, the oldest physician in Dayton, provided a few; he received for Dr. Clements, who did "not feel able to *give*," the sum of \$2.00 in payment.⁵ Mrs. Alexander Schulek was anxious to dispose of the library of her deceased husband, which was unsaleable in Dayton; he listed and priced some twenty volumes which he thought Billings might want and transmitted eventually to the widow a check in the amount of \$10.00 which represented an average price of 38 cents a volume.⁶ On an "excursion" west he explored in Denmark, Lee County, Iowa, the library of Dr. George Shedd, who, as he wrote on July 20, 1872, was past his three score years, had no son in the profession of medicine, and would doubtless be willing to accept in payment whatever Billings would feel able and willing to give. On permission of Dr. J. J. McIlhenny of Dayton he rummaged in that physician's collection and on September 14, 1872, sent to Billings five packages containing upwards of

³ Adams Jewett to JSB, May 6, 1872.

⁴ Adams Jewett to JSB, June 3 and 10, 1872.

⁵ Adams Jewett to JSB, May 28, June 3 and 9, 1872.

⁶ Adams Jewett to JSB, May 31, June 7, 12, and 28, and July 10, 1872; JSB to Adams Jewett, July 15, 1872.

sixty reports and issues of journals. To German-born Dr. Baltz, who had practised for some time in Dayton but was on the point of returning to Berlin, he paid on behalf of Billings \$22.00 for some sixty volumes, "almost all of them standard works,—by eminent authors—all but two (I think) bound substantially & good looking"; the box in which they were shipped to Washington raised the cost to \$22.25, a receipt for which followed promptly.⁷ When Dr. A. G. Walden contributed some volumes from an old preceptor and asked nothing in exchange, Jewett at first suggested to Billings on October 14, 1872 that labels reading as follows be pasted in the books: "From the library of the late Dr. Cortland Williams of Milford, Ohio, through his pupil Dr. A. G. Walden of Dayton, O." On second thought, however, he applied the labels himself so that Billings, in acknowledging the gift to Dr. Walden, might report the thing as "done did." Just back on November 4, 1872 from attending the funeral of his niece's husband in Troy, Ohio, he reported immediately on his book hunting among physicians there.

These are samples of his activities. As late as June 22, 1874, he was reporting on hunts in Rock Island, Illinois, and Davenport, Iowa. He was patient, energetic, and persistent. The genuine sparkle in all these transactions—the frosting on the cake—is, however, the counsel which he freely proffered in almost every letter to a Billings who, acquiring steadily to the very limit of the funds voted by Congress, was at the same time steadily harassed by their utter insufficiency to forward his projects as he would have liked. In Jewett he found a kindred spirit, a man who saw the same vision of a universal medical library and realized the difficulties ahead, and to him he expressed as early as May 31, 1872 "personal thanks for the valuable aid you have rendered, and for the manner in which you have given it. It is rarely that I find any one who so thoroughly appreciates the nature of the task I have undertaken." From Billings, never given to inflated and affected utterances, this was high praise.

Jewett provided him above all with a sympathy which was not always available in official circles in Washington. "If Congress has failed," he wrote on July 20, 1872,

to put at your disposal the necessary funds for buying up as occasion offers books no longer found regularly on the shelves of bookdealers when these books can be had—not at fancy prices but at reasonable, even moderate prices, I think it is a very unfortunate failure.⁸

On August 2 he expressed his vexation at the actual sum allotted for the ensuing fiscal year:

⁷ Adams Jewett to JSB, September 21 and 28, October 1 and 9, 1872.

⁸ In this and succeeding quotations from the letters of Adams Jewett most of the abbreviations have been silently expanded for ease of reading.

So Congress has appropriated only 4000 for your library for the year. I think it a meager pittance considering the great & noble object in view. Evidently there must be but few physicians in the councils of the nation and they too perhaps like the common herd of politicians looking out for party success—places for themselves, relatives or friends. . . . Let us hope that Congress will show itself more enlightened and give you 20000 next year, as it ought to do.

On August 16 he enveloped his sympathy in suitable metaphor:

What a pity, what a drawback to be obliged to go out with a scanty supply of ammunition—to see very desirable game all the time escaping because you could not spare the small amount of ammunition necessary to save it—and with the knowledge that another time you might have to hunt a long time perhaps for the very same game that is now in full view & possibly not find it after the hunt. Now is always the accepted time.

Billings was, however, putting to effective use even so scanty a supply of ammunition, and Jewett from the wisdom of his own years of collecting sent repeated recommendations. Binding was to wait; the matter of moment was acquisition, for with just a short delay much could be lost forever.⁹ Voracious paper mills stood waiting, and even the most devoted widows and daughters eventually grew weary of dusting twice a year at housecleaning time row after row of heavy medical tomes and pile upon pile of unbound, slithering journals.¹⁰ The latter could be purchased often at paper mill prices of 3 cents or 4 cents a pound.¹¹ Files of journals were by all means to be completed,¹² and it would be well for Billings to prepare for distribution to the profession lists of the issues desired and to solicit contributions.¹³ In building up a library for universal reference it was desirable to obtain not only the latest and best edition of some standard work, but also the first and worst, to serve not current medicine but its history.¹⁴ And in any purchase Billings would need to act like the botanist assembling his herbarium—laying hold gladly of every new specimen, even if a poor one, in the hope of finding later a better one to take its place.¹⁵

It was canny and shrewd advice, reminiscent of the Edinburgh where Jewett had trained, and Billings adopted of it what he could. It was laced with surprising and vigorous touches, like the comments of August 16, 1872 on the Webster-Parkman murder case: Jewett was offering *Elements of Chemistry, for the use of schools and academies . . .*, by Andrew Fyfe, with

⁹ Adams Jewett to JSB, August 2, 1872.

¹⁰ Adams Jewett to JSB, June 3 and 7, July 20, and August 31, 1872.

¹¹ Adams Jewett to JSB, June 7, 1872.

¹² Adams Jewett to JSB, August 2, 1872.

¹³ Adams Jewett to JSB, July 10, 1872.

¹⁴ Adams Jewett to JSB, June 12, 1872.

¹⁵ Adams Jewett to JSB, June 10, 1872. Jewett's herbarium was given to the University of Michigan by his son.

additions and alterations by John W. Webster, and he expressed the opinion that Webster had been

most deservedly hanged for the murder of Dr. Parkman in Boston before you were born perhaps—certainly before you can remember, for my son was astonished to find you a young man, quite a young man, he said—a most remarkable murder, a most remarkable detection & a most remarkable hanging which could hardly have taken place anywhere but in the Old Bay State against the powerful efforts made to save Prof. Webster's neck from the halter.

This son, he for whom the father was replacing the old books of his library with new, was Henry S. Jewett (1846–1929), A.B. University of Michigan 1868, M.D. 1870, A.M. 1875. In the summer of 1872 he was preparing to continue his professional studies for a year or more in Berlin and Vienna, and on July 10 the father suggested that Billings might be willing to furnish a letter in his behalf to some friend abroad. This was, however, before the first of Billings' many trips to Europe, and he could only answer, on July 15, that he had never had the opportunity of visiting Europe and therefore could not assist with letters as he would be very glad to do were it in his power. It would appear that Dr. Henry S. Jewett called on him in Washington before sailing and promptly reported on his youth (he was 34) to Dr. Adams Jewett.

But in all these relations with the Jewett family it is well to remember that Billings had even closer ties in Dayton. His father (d. 1892) and mother (d. 1898) were living there, and very probably Adams Jewett knew them; certainly Henry S. Jewett did, for he reported on April 22, 1876, that James and Abby Shaw Billings had been well when he last saw them, a little more than a week earlier. There was also, at Dayton's National Asylum for Disabled Volunteer Soldiers, a Miami classmate, Dr. A. S. Dunlap, who corresponded with Billings on various matters and co-operated with Adams Jewett in hunting journals for the library.¹⁶ These associations would have confirmed Billings' regard for Jewett, and we are glad to have evidence from Billings himself that two such kindred spirits actually met more than once.¹⁷

Word of the death of Adams Jewett on March 11, 1875 reached Billings promptly, and on March 27 he sent his condolences to the son, expressing his regret and also his surprise at an event which was entirely unexpected, "as the last time I saw him he seemed to be in excellent health & spirits." Billings and Henry S. Jewett continued in some degree the mutually profitable relations which Adams Jewett had begun, but since the vision was each year coming ever closer to realization, the pressure in acquisition

¹⁶ A. S. Dunlap to JSB, September 21, 1872.

¹⁷ JSB to Henry S. Jewett, March 27, 1875.

had lessened. The younger Jewett died on January 7, 1929, by which time the prophecy sent by his father to Billings on February 12, 1874, had long been fulfilled:

The day will be—not in my lifetime of course, but in yours I hope—when the Nat'l. Med. Library will furnish all the information to be found anywhere in regard to . . . every . . . medical subject. Our representative is a justly and liberally disposed man. He will hear from the brethren.

President's Page

GERTRUDE L. ANNAN

President, Medical Library Association, 1961-62

Not so many years ago, one entered medical librarianship more by chance than by planning, either through working in general libraries or through some clerical occupation in medicine. Gertrude Annan came to it through neither, nor did she plan for it. Having majored in English at Brown University, hoping to teach literature or direct dramatics, she became, instead, assistant to Lawrence C. Wroth, Librarian of the John Carter Brown Library. There, work with rare books produced in her that love of old literature and the broad knowledge of its tools which were to form the core of her existence. Called in 1929 to the New York Academy of Medicine, she organized its Rare Book and History Room and spent twenty-five years developing it (there can be today but few historians of medicine in this country who have not received assistance from the Academy's scholarly rare book curator), until in 1953 she became the Academy's Associate Librarian and, in 1956, Librarian.

Not only has Gertrude Annan concerned herself with aid to medical historians: she has tried to show librarians the value, fascination, and methods of dealing with rare books. Her chapter in the *Handbook on "Rare Books and the History of Medicine"* forms a basic text and reference source for them. Articles and talks have reiterated her tenets that old books are not "rare" because they are scarce or old, but because of what they contribute to knowledge, that they should be used and not locked out of reach, that even ephemeral pieces can make history, that the archives of an institution should be part of its historical collection, and that such a collection can be built up at reasonable cost. She has twice given the Medical Library Association's refresher course on rare books, and has often been a guest-lecturer on historical works in the medical library courses at Columbia and Catholic Universities. To break down the barriers which awe and ignorance have raised between rare books and the rest of literature, she has shown her colleagues what such books can mean to a library and has given simple instructions for dealing with them. Many a medical library will in the future be servicing a useful rare book collection because of Gertrude Annan's devotion to this idea and her efforts to spread it.

When, after a quarter of a century's work with her beloved rare books, Gertrude Annan assumed administrative duties, she showed the same insight into the Library's general problems and energy in dealing with them.



GERTRUDE L. ANNAN

President, Medical Library Association, 1961-62

Not only has the Academy benefited; New York metropolitan library conditions have had her attention, too. In 1958, acutely aware of space difficulties in medical libraries, the Academy, at Gertrude Annan's instigation, called a conference of New York librarians and physicians to discuss a depository collection and center for interlibrary co-operation. She was unanimously asked to become chairman of a committee to implement the decision for co-operation, and gave unstinted time and effort to it. This culminated in the incorporation of the Medical Library Center of New York and the appointment of a director who started work May 1, 1961. Activities such as this have meant many meetings and much speaking. She responds generously to requests for talks, and she speaks with charm, conviction, and simplicity.

Her ideas and energy have found expression in her activities for the Medical Library Association while she worked on many of its committees, especially those on publications and as chairman for the New York meeting in 1957. Her good sense and practicality were invaluable when she was Finance Committee chairman, on the Board of Directors, chairman of the Committee on Committees, and Vice-President. Her experience and initiative augur well for the presidential year ahead.

This devotion to her tasks has its firm base in Gertrude Annan's New England background, with a touch of German thoroughness thrown in. A social conscience drives her to unremitting endeavor for the principles she believes in: she will not compromise. Definitely not a "yes-man" herself, she respects the right of others to be nonconformist. For a cause she considers worthy, no effort and no sacrifice are too great. All the more sweeping, in consequence, is her condemnation of misdirected or slipshod work. If some have felt such a sting—perhaps through misunderstanding not always deserved—many have been encouraged to improve their gifts, learn new skills, or overcome a disability. Her readiness to help goes out especially to those from abroad who face difficulties of language or inexperience.

This may sound as though work and no play filled Gertrude Annan's days. Not a bit of it; no companion could be more fun. Ex-dramatics student, she loves the theater. Reading is one of her great resources, and she shares it with others, reading aloud to family or traveling companion biography, history, archaeology, English detective stories. Crossword puzzles and double-crostics bring out her mental agility. She likes jaunting, especially by the sea, and touring old houses anywhere. Most of all, she was thrilled by her trip to England as the Academy's representative at the First International Congress on Medical Librarianship in 1953. History came alive for her. She visited the Scottish village of Annan whence her forebears came. Wherever she may be, she enjoys good food, above all,

lobster in its unadulterated perfection—as befits one with Maine ancestry. Moreover, she is an excellent cook and loves to entertain, producing seemingly without effort a conservative turkey dinner or a daring experiment with shrimp, eggs, cocoanut, and curry. Whatever Gertrude Annan does—cooking, historical research, teaching, administration—she does with her whole mind and heart. This should produce a successful technique for the presidency.

JANET DOE

Notes from London

The need to prepare these notes some three months before they appear in print sometimes produces awkward situations. In the April BULLETIN I reported a discussion in London on the new *Index Medicus*. The supplement to the January BULLETIN, received in London several weeks later, provided a complete answer to the criticisms made and explained the necessity for adopting some of the measures to which exception had been taken. The *Supplement* has been read here with admiration. It has made us all realize the painstaking research that went into the planning of the *IM* and the care that is exercised in its production.

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Hospital Abstracts, the new monthly survey of world literature on hospital administration, is proving a valuable addition to the literature on the subject. It is compiled by the Librarian of the Ministry of Health, Mr. A. E. Fountain, and his staff. It is a well-produced publication, providing abstracts of papers covering the whole field of hospitals and their administration except strictly medical and related professional matters. It is published by Her Majesty's Stationery Office at an annual subscription of \$11.52. Applications for subscription may be addressed to British Information Services, 45 Rockefeller Plaza, New York 20, N. Y. Specimen copies are obtainable from H. M. Stationery Office, Publications Division (P6C), Atlantic House, Holborn Viaduct, London, E.C. 1.

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Mr. G. J. Hipkins has retired from the secretaryship of the Medical Section of the Library Association after serving in that office for ten years. During that period he has contributed more than anyone else to the development of the Section and leaves it in a flourishing condition. To mark their appreciation of his work members of the Section recently made a presentation to him. He is replaced as honorary secretary by Mr. E. H. Cornelius (Royal College of Surgeons).

The occasion of the presentation was the annual business meeting of the Section, held in the library of the Royal College of Physicians. After the meeting we browsed among the books, looked at the Gold-headed Cane, and saw other College treasures, perhaps for the last time in their present surroundings, for the familiar building in Trafalgar Square is soon to be vacated by the College for a new home in Regent's Park.

* Contributed by Mr. L. T. Morton, Librarian, National Institute for Medical Research, London.

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A small committee has been formed in London to co-ordinate the arrangements of British librarians expecting to attend the Second International Congress on Medical Librarianship. It is hoped that Britain will be well represented in Washington in 1963 and that delegates from this country will make a worthwhile contribution to the proceedings of the Congress. Some of us had the pleasure of meeting Dr. F. B. Rogers in London in February and hearing from him the details of the Congress programme.

Winnowings*

BY WILLIAM K. BEATTY†

ANNAN, GERTRUDE L. Medical Classics: Editions Old and New. Stechert-Hafner Book News. 15: 53-55, Jan., 1961.

Classics of medicine receive this appellation because of the author, subject, place, or time. The many facsimiles and translations of these works make them available to most medical libraries at relatively small cost. Miss Annan suggests some of the pleasure and excitement of dealing with the classics in the historical development of medical theory and practice.

COGAN, DAVID G. (Editorial). Publication Explosion. Arch. Ophthal. 65: 319-320, Mar., 1961.

"Certainly not all that goes under the name of research warrants publication. . . ." This heresy is the major reason for the author's dim view of the rapidly increasing number of journals in his field. The *Archives* has shown for some time a considerable interest in bibliographic matters, and has used abstracts as a suitable method of reporting papers presented at meetings. These thoughtful comments by the Editor are, therefore, of particular value.

DAVIDSON, HENRY A. How to Save Time on Your Medical Reading. RISS 4: 41-45, Mar., 1961.

Recognizing a bad article early can save the physician a great amount of time. In a refreshing turn-around Dr. Davidson gives the reader some pointers for spotting a worthless article before he is trapped.

Effective Medical Writing. New Physician. 10: 65-80, Mar., 1961.

This special section contains six papers which were originally presented at the 1960 Conference of the American Medical Writer's Association. Fishbein and Alvarez contribute some anecdotes; Garland has written a most interesting essay on the duties and activities of a medical editor; DeBakey underlines the pressure forcing physicians to write, and offers some possible solutions; Snively has some forceful remarks and guides on the subject of prolixity; and Hewitt apologizes (unnecessarily) for drawing attention to the underlying cause for poor medical writing.

* Longer reviews of some of the items mentioned here may appear either simultaneously or later in the section, "Book Reviews and Journal Notes."

† Medical Librarian, University of Missouri, Columbia, Missouri.

FRANCKE, GLORIA. Guide to Information Sources for the Hospital Pharmacist: 1960 Revision. *Amer. J. Hosp. Pharm.* 18: 15-23, Jan., 1961.

Librarians will find much helpful material in this list. Many of the items are annotated. The sections on reference tools and journals are particularly good. The textbook section is spotty both in coverage and currency.

FREUND, GERHARD. The Profile of a Publication; An Aid in the Critical Evaluation of Medical Articles. *Med. Docum.* 5: 2-6, Jan., 1961.

The author has worked out a "publication profile", analogous to the "liver profile", as a method for evaluating articles and, indirectly, for improving one's own writing. The six tables used are shown at the end of the text. This is a stimulating article, and it deserves careful reading and thought.

GALL, EDWARD A. The Three Faces of Medicine. *J. Med. Educ.* 36: 275-281, Mar., 1961.

Dr. Gall, with the aid of some "poorly labeled liquids", a moon-lit statue, and a facile pen has produced a delightful essay on the activities and needs of the medical student, the teacher, and the practitioner.

GAÑO, S. N. Deficiencies in the English Medical Vocabulary. *The Leech*. (Cardiff). Autumn, 1960.

The Leech's noted New York correspondent has distilled a mass of linguistic knowledge into this little gem. One may quibble over the doubtful position of the woman who "dysps", but there can only be sympathy for the poor patient who is "Wolff-Parkinson-White-ing".

GIBSON, W. C. (Outline of Speech to 2nd B. C. Medical Library Service Conference). *Brit. Columbia Med. J.* 2: 779-781, Dec., 1960.

The importance is stressed of financial support by physicians for regional medical library service. Relatively small payments will enable the practicing physician to keep up with the current literature and to avoid overlooking important work from the past. Enthusiasm for a worthwhile cause has unfortunately led to some errors of fact.

GOODY, WILLIAM. Syndromes. *The Lancet* 1: 1-3, Jan. 7, 1961.

This thoughtful paper contains, in addition to flashes of delightful humor, some excellent observations on medical education and history, and on human psychology.

HECHT, HANS H. The Blight of Medical Science. *Amer. Heart J.* 61: 282-283, Feb., 1961.

Our present system of written communication in medical science is inadequate, and will become useless within a few years. "Quantitative mediocrity" is one of the principal causes of this situation. As a remedy the emphasis should be placed on the publication and dissemination of abstracts and upon the central storage, classification, and distribution (upon request) of the complete articles.

HERRMANN, JOSEPHINE. Medical Library Services. Part I—References. *Hosp. Prog.* 42: 164, 166, 168–170, Mar., 1961.

This practical paper gives suggestions for helping the different types of readers who use the medical library, and presents, with annotations, the essential books, both medical and general, needed for basic reference work.

HUDSON, ROBERT P. The Lunar Society of Kansas University. *J. Med. Educ.* 36: 182–187, Feb., 1961.

The Society, a student organization which was founded at Kansas in 1955, is a spiritual descendant from the Birmingham group of the eighteenth century. Its primary purposes are encouragement of discussion of the "medical humanities" and the improvement of the student's abilities to think and converse. The report is written in a delightful manner, and it suggests possibilities for the formation of groups to study medical history and other subjects.

INGLE, DWIGHT J. Percy T. Diorets, Endocrinologist—A Fable. *Pharos of Alpha Omega Alpha*. 24: 32–37, Jan., 1961.

The Editor of *Perspectives in Biology and Medicine* has written a gently satiric account of the temptations of modern scientific life. His skill at constructing apt phrases is a match for his ability to see the ridiculous aspects of a sacred calf. This paper originally appeared in the July, 1960, issue of *Endocrinology*.

MACDERMOT, H. E. The Fiftieth Anniversary of the Association Journal. *Canad. Med. Ass. J.* 84: 1–5, Jan 7, 1961.

A former editor of the *Journal* has summarized its history and made some perceptive comments on the organization and growth of a national medical journal. T. C. Routley adds further information (pp. 24–26).

MACMILLAN, JUDITH T., AND WELT, ISAAC D. A Study of Indexing Procedures in a Limited Area of the Medical Sciences. *Amer. Docum.* 12: 27–31, Jan., 1961.

The authors draw a logical distinction between "document" and "in-

formation" retrieval. They discuss some of the methods and problems of the Cardiovascular Literature Project. An interesting example is given of one of the major problems: the variation in index terms when more than one person indexes a particular article. The paper ends with some provocative comments on the use of author abstracts.

MARRIOTT, HENRY J. L. (Editorial). Balm for Writer's Itch. *Amer. J. Cardiol.* 7: 161-166, Feb., 1961.

Unfortunately articles on medical writing have become so popular that they are now being written by authors who are unaware of the major principles involved or who are incapable of putting them into practice. Dr. Marriott does not fall into either of these categories. His comments are lively, realistic, and practical. Writers at all levels of experience will enjoy this helpful paper.

MARSHALL, JOHN DAVID. On Books and Their Dedications. *Stechert-Hafner Book News.* 15: 65-67, Feb., 1961.

At the end of this brief essay the author warns the reader who skips the dedication page of a book, "If you do, the chances are good that you'll miss a choice bit of reading". The reader who skips this essay will miss a choice bit of reading—and writing. Marshall's selections, especially the one from Steele, will make a wonderful antidote to "librarian's doldrums".

MASTERS, ANTHONY. Mental Hospital Libraries. *Libr. Rev.* 137: 29-31, Spring, 1961.

A librarian describes, with a gentle and practical touch, some of his activities. One feels that the patients in this hospital are fortunate in at least one respect.

MAY, CHARLES D. Selling Drugs by "Educating" Physicians. *J. Med. Educ.* 36: 1-23, Jan., 1961.

Many authors have written many articles in many journals on, around, and about this problem. To say that the subject suffers more from emotionalism than from logic is to belabor the obvious. There is a need for a rational and productive view of the whole matter. Dr. May, with the critical assistance of an independent group of authorities, has provided such an article. Librarians might well peruse this and leave copies where their readers will stumble over them.

Medical Communication. *J. Einstein Med. Cent.* 8: 238-287, Oct., 1960.

Of the dozen articles contained in this issue the following are of special interest: Pogge—an enjoyable piece of writing; Hill—useful information about graphs and illustrations; Clagett—basic, but essential, material on

preparation of papers; Orr and deKoven—excellent comments on the importance of the summary or abstract written by the author; Beck—needed comments on accuracy of references; Morse—some interesting figures on circulation of journals.

Medical Writing. *J. Mich. Med. Soc.* 60: 191–230, 234–235, Feb., 1961.

It is seldom that a collection of papers on this subject provides so effectively examples of both "how to do it" and "how not to do it." On the plus side are the articles by Bartley (some good practical points); Brewer (brief and useful); Good (excellent practical advice); those by Reveno and Miller offer some points for the editor of a hospital or society bulletin; Woodson and Slee (on statistics); Houtz (on graphic methods); and Bailey (on the duties and responsibilities of an editor).

MENKES, JOHN H. Normalcy and the Gamma Efferent System. *Lancet* 2: 1394–1395, Dec. 24, 1960.

Using Pirandello's "Cosi e, se vi pare" as his final thrust Dr. Menkes describes a new method for defining normalcy, and emphasizes the importance of the gamma efferent system. This carefully constructed report, based on the remarkable work done by Coward, Held, and Lilly, will provide valuable information for the thinking medical scientist.

MONAGHAN, MARGARET A. The Library Committee in a School of Nursing. *Hosp. Progr.* 42: 104, 106, Feb., pt. 1, 1961.

The faculty and student library committees at the Sisters of Charity Hospital in Buffalo are concisely described. The relationships between these committees and the library show a productive history that has several important lessons.

MOORE, FRANCIS D. Leonardo and Vesalius; The Two Roads: Surgery and Science. *Rhode Island Med. J.* 44: 35–38, Jan., 1961.

This is a clever, effective, plea for more emphasis on the "full-time" system of teaching at medical schools. It is also a charming historical essay.

MOSHER, FREDRIC J. A Sermon for Beginning Reference Librarians. *The Rub-Off*. Vol. 12, No. 1, Jan./Feb., 1961.

Many of the suggestions apply to the experienced reference librarian as well. All librarians should be sceptical because "our little island of knowledge is floating in a sea of ignorance".

NEELAMEGHAN, A. Current Indexing and Abstracting Services in the Medical and Related Sciences. *Ann. Libr. Sci.* 7: 101–116, Dec., 1960.

Medical libraries, especially the small and medium-sized, often have

difficulty in selecting the most suitable indexing and abstracting journals. Broad coverage is sought within a straitened financial framework. The annotated list of current indexing and abstracting periodicals recently put out by the WHO (their *Library News*, vol. 12, supp. 2, 1959) has been examined and re-cast to provide two shorter lists that will give broad coverage by subject and by region. Although there is room for further refinements these lists should be quite helpful.

Page Charges in APS Journals. *Physiologist* 4: 25-26, Feb., 1961.

The availability of medical information is directly affected by the costs of production and acquisition. The American Physiological Society will adopt a relatively new approach in July, and the thinking behind this change is clearly stated in this brief report. *Science* (Mar. 31, 1961, p. 1003) contains some related comments and background material.

PATTERSON, MARIAN A. The Life and Times of the Hon. John Rolph, M.D. (1793-1870). *Med. Hist.* 5: 15-33, Jan., 1961.

Miss Patterson has written a lively account of a major contributor to the medical, political, and legal history of Upper Canada. She has drawn on manuscripts preserved in the medical library of the region, and has provided, in addition to a pleasant essay, a good example of the scholarly side of medical librarianship.

PIEZ, GLADYS T. Laminator for Libraries. *ALA Bull.* 55: 269-275, Mar., 1961.

The Library Technology Project sponsored part of this test and carried out the second phase in their laboratory. This report describes the testing and evaluation of one type of laminator which uses the heat method. The Project staff has amassed a great amount of useful information on this and other subjects. The staff will be glad to answer any specific questions.

ROSENBLUM, MARCUS. (Editorial). The Vocabulary of Health. *Amer. J. Public Health.* 51: 279-281, Feb., 1961.

"Like radiation, words can be dangerous, or useful, or both." Several horrible examples of frequently mis-used words are exhibited to illustrate this thesis.

ROTHSTEIN, SAMUEL. Reference Service: The New Dimension in Librarianship. *Coll. & Res. Libr.* 22: 11-18, Jan., 1961.

Reference services should move from the atmosphere of "education and fear" to that of "faith and efficiency". Librarians should cease working

merely "with" books, and should spend more of their efforts "in" books. Some target-hitting pot shots are taken at the weak points in minimum or restricted reference service.

S.A. The Martians Have Landed. *Med. Bull. (M & B)*. 9: 13-16, Jan., 1961.

Librarians who rely solely on *Aerospace Medicine* for keeping up with advances in space medicine will miss this important contribution from the South West London Resident Staff Scientific Group.

SHEPPARD, C. W. (Editorial). Brains, Data and Machines. *Circulat. Res.* 8: 489-494, May, 1960.

Machine methods are rapidly making themselves felt in libraries. Many librarians take a dim view of these complicated approaches that require new learning on the librarian's part or the assistance of trained persons from outside the library field. Whenever a clear and practical statement describing these methods becomes available it behooves librarians to pay attention to it. This editorial is an excellent example of a logical account of the possibilities and impossibilities of machine methods, and it should clarify many obscure points for the librarian who feels lost or inferior when a machine glowers at him.

SONNEDECKER, GLENN. The Pharmacist as a Book Collector. *Amer. J. Hosp. Pharm.* 18: 24-30, Jan., 1961.

Practical suggestions are given primarily for the inexperienced collector, and several general comments on the pleasures of book collecting show that the author is probably a "victim" himself.

THORNTON, JOHN L. The Distribution of Medical Literature in Great Britain, and the Need for a National Library of Medicine. *Libr. Ass. Rec.* 63: 79-82, Mar., 1961.

A short history is given of the need for a national library of medicine, and some pointed comments are made about the proper staffing for such a library. The various medical libraries are described briefly by size and location, and, in some cases, by type of user. The medical collection of the British Museum is suggested as the most likely basis for a national library.

WOOD, S. Mr. Tipple's Chest Wound. *Ann. Roy. Coll. Surg. Eng.* 28: 122-130, Feb., 1961.

The author, a member of the library staff, described the incident fully in the July 1960, issue of *Medical History*. This article deals with a rare pamphlet that was recently obtained by the College.

YOUMANS, JOHN B. The Humanities in Medicine. *Amer. J. Cardiol.* 7: 145-151, Jan., 1961.

"Science must augment not displace education." There is a vast difference between the educated physician and the trained technician. Exposure to the humanities in pre-medical education does not guarantee an "educated" graduate any more than does a lack of such exposure guarantee a "trained" graduate. Dr. Youmans has presented a thoughtful and literate discussion of some of the major problems confronting medical education and the medical profession. The "Crisis" in medicine today may hinge more directly on the problems discussed here than it does on those put forward by the screechings of blatant journalists.

ZEITLIN, JACOB. What Kind of a Business is This? Reminiscences of the Book Trade and Book Collectors. *Amer. Book Collector.* 11: 5-15, Jan., 1961.

The cover of this issue, if not actually chosen by the author, would certainly appeal to him. Jake Zeitlin speaks and writes in an enjoyable fashion. His reminiscences are delightfully presented, ranging from sly humor to touching understanding.

BRIEF NOTES: Hasan has some interesting things to say about medical librarianship in the *Karachi Medicus* (20: 174-177, 1960). Philippine medical libraries receive the same treatment from Stransky (*J. Philipp. Med. Ass.* 36: 372-375, 1960). The kind of library in which one would like to spend a rainy afternoon or so, the Cole Library of Zoology and Early Medicine, University of Reading, is described in *Nature* (Dec. 31, 1960). Evelyn Puhl tells about "Planning the Psychiatric Library" (*Hosp. Progr.*, Jan., 1961). Hospital library services in Paris were the subject of an article by Basset in the Jan.-Feb., 1960, issue of *L'Hôpital et l'Aide Sociale à Paris* (LSA 10695). Tettey provides information on medical library services in English-speaking West Africa in the May, 1960, issue of the *WALA News*.

The Proceedings of the 1960 Conference of the Catholic Library Association contain many useful papers. Among them are those by: L. B. Miller, Proposed Cumulative Index for the Literature of Nursing (p. 151-154); E. Cairns, Adequate Budget for the School of Nursing Library (p. 149-150); and W. C. Bier, Responsibility of the Hospital Librarian in the Selection, Acquisition, and Circulation of Books in Psychology (p. 155-163). The page-cost of journals is in the correspondence columns of *Nature* again (Dec. 17, 1960, p. 1052). A brief statement of the general needs for a clinic library will be found in the Mar., 1961, issue of *Group Practice*. Since group practice seems to be increasing, these comments will be quite helpful. Josephine Dolan has some ideas for brightening up the

teaching of nursing history by using postage stamps (*Nurs. Outlook*, Mar., 1961). The Report of the Joint Committee on Pharmacy College Libraries appears in the Winter, 1961, issue of *Amer. J. Pharm. Educ.* Dennis Brunning, Librarian at the Chester Beatty Research Institute, makes some sensible comments on the subject of reprints (*Lancet* 1: 452, Feb. 25, 1961).

Washburn and Willis take a good look at dental journals (*Conference on Dental Journalism*, June, 1960). *Klinicheskaia Meditsina* celebrated its fortieth anniversary with a brief history in the Aug., 1960, issue. J. M. de Rocha tells about twenty-five years of the *Jornal de Pediatria* in the June, 1960, issue. Miles Conrad tools up *Biological Abstracts* for the future in the Oct., 1960, issue of *AIBS Bull.* Jacqueline Felter's stimulating paper at the 1960 MLA convention receives fine support from Kathryn Shaffer (*Phys. Ther. Rev.*, Feb., 1961). Horno Liria dilates on the medical publishing industry in the Feb., 1960, issue of *Clin. Lab.* (Zaragoza), and speaks at some length on medical journalism in the July, 1960, issue of *Sem. Med.* (Buenos Aires). The Editor of the "new" *Journal of Pharmaceutical Sciences* has some cogent remarks on the need for more journals (Mar., 1961). He writes, among other things, "Present limitations are in the quantity of suitable manuscripts rather than in the journal space in which to publish them".

Gamma-irradiation is offered as a method for disinfecting books in an article by Beliakova (*Mikrobiologiia*, Sept.-Oct., 1960). "What to Look for in a Reading Machine" (who hasn't asked this question) is treated comprehensively by Ballou in the Jan., 1961, *ALA Bull.* Brief biographical notes have appeared on Miss Blake Beem (*J. Kentucky Med. Ass.*, Feb., 1961, p. 168) and on T. J. Shields (*Brit. Med. J.* 1: 304, Jan. 28, 1961). The recent spate of medical encyclopedias left one of the most important phenomena untouched, but Brian Maegraith provides the needed information on the Gekochteundgebrocheneeierschale Phenomenon in the Dec. 24, 1960, issue of *Lancet* (p. 1395-1396). The attitude, prevalent in some quarters today, that the maintenance of health is not the province solely of the physician, receives a neat twist from a note entitled "Status" in the Feb., 1961, issue of *J. Irish Med. Ass.* (p. 52). If there are still devotees of medical ornithology they will find an important contribution in the Mar., 1961, issue of the same journal (p. 84).

Editorials

GUEST EDITORIAL

When, that day in 1836, Dr. Lovell approved the budget item of \$150 for medical books for the Office of the Surgeon General, he could not have had the faintest dream of the remarkable development he set in motion. One hundred and twenty-five years, thousands of books, millions of bibliographical citations, and several buildings later, the National Library of Medicine is a sight to behold. The lineaments of the institution are still changing, and will continue to change; hardy the soul who cares to predict what even the next decade may bring!

When the Editorial Board of the BULLETIN suggested this special anniversary issue, the Staff of the National Library of Medicine was glad and ready to respond. It is our hope that the contents of this number will convey some of the flavor of the Library's activities, illumine some of its history, and contribute some substance to the rich store of medical bibliography.

As we begin the second century-and-a-quarter, we have faith in our stars, hope for the future, and charitable feelings toward that unknown librarian of 1683 who said that "if men would take care that ill Books be not written, and that good Books be not ill written; but that in their composing a due regard be always had of *Prudence, Solidity, Perspicuity*, and *Brevity*, there would be no cause left for us to complain of the too great number of Books."

FRANK B. ROGERS

THE NATIONAL LIBRARY OF MEDICINE ANNIVERSARY ISSUE

Several years or so ago your editor had a wonderful idea (sometimes even editors do) that it would be a fine thing for the Association if some of the largest medical libraries would agree to be responsible for individual issues of the BULLETIN. Consequently, the director of the National Library of Medicine was asked if he would start off this important project whereby our readers could be informed of the history, development, and special fields of activity of the leading medical libraries. On February 24, 1958, he agreed, provided that the National Library of Medicine issue could be published in 1961 to commemorate its one hundred and twenty-fifth anniversary. It is with great pride that the Editorial Board of the BULLETIN presents this issue, edited by Dr. Frank B. Rogers and written by him and

many members of the staff of the National Library of Medicine. We feel that it is a contribution to medical literature and an issue greatly to be prized by BULLETIN readers. As an editor bowing out in the aura of this fine issue, I hope that the idea inaugurated here will flourish.

L'ENVOI

It is time to say goodbye. I will not pretend that I hate to do so—because frankly, I am looking forward with great glee to reading succeeding issues of the BULLETIN *after* they arrive from the printer rather than partaking of the agony of getting them there. I won't worry about deadlines, having enough material, having good material or having any material! I won't pester my friends to write, write, write. I won't try to stop other friends who can't write but do. I won't be horrified if authors fail to send the required number of copies or if they completely murder the *Manual of Style* or positively ignore the correct abbreviations of the *Index Medicus*. I won't have to harry committee chairmen, program chairmen, section editors or anyone else to "get them to the church on time." I will now know at last what the date of the year is, rather than living months in the future, and I won't be planning for July in January. I won't be balancing school with society and hospital with dental or pharmacy with nursing libraries. I won't care if there is a preponderance of reference material and nothing on cataloging. I won't mind if librarians decide to devote their energies entirely to medical history or if they decide instead to concentrate on documentation. I won't worry if one issue has 200 pages and the next one just 50. It won't be my problem if the cost of printing goes up four times a year. I won't have to determine what the incoming budget should be and I won't fume if an author wants to add 64 lines to his article at the page proof stage. I can just laugh when an author hits the ceiling because a reviewer didn't like his book and I can just relax when some sensitive soul notes that his article was omitted from a bibliography. I won't have to wait for those promised articles that never arrive.

But oh, how I shall miss the many heart-warming letters of praise and understanding. How lonesome it will be without the pleasant and rewarding contacts with friends both old and new. How lonely it will be without daily missals from a wonderful editorial board. How sad a prospect not to know every news item instantaneously, and every new development the minute it happens. How tragic not to be planning, planning, planning. How staid life will be without the risks, the uncertainties, and the excitement of being an editor. How dull it will be—but oh, how peaceful!

Good bye, good luck and God bless you to the brave and intrepid incoming editor, Alfred Brandon; the capable and most understanding

Associate Editor, Jacqueline Felter; the exceptionally co-operative editorial board who devoted untold hours to providing this journal, G. S. T. Cavanagh, David Kronick, and Frederick Bryant; the fine and friendly Waverly Press; and the BULLETIN readers, of which group I soon will be the happiest one.

MILDRED CROWE LANGNER
Editor

Short Communications to the Editor

Dear Editor:

The study, "The Bibliographic Control of Supplements to Medical Periodicals," by H. Bloomquist, T. P. Fleming and J. B. Balkema¹ is a fine example of the use of systematic research to answer questions of policy and to evaluate practices which may have become outmoded. While the conclusions are well supported by evidence, however, there are some problems which may be usefully raised.

It is assumed that supplements contain important information and that a subject approach to them, whether through the catalog or other bibliographic tools, should be available to the librarian as well as to the reader. With this in mind, I would like to examine certain aspects of the study.

1. Adequacy of the tools of control.

The study shows (Table 1, p. 302) that 99.3 per cent of the supplements in the sample could be found in a search of six separate indexing tools. This fact in itself could hardly evoke great enthusiasm if it would be necessary to search all six tools in order to obtain a significant percentage of the supplements published. Such a procedure might take as much time in searching as it would take to catalog a supplement. Happily, Table 2 indicates that a single tool, the *Current List of Medical Literature*, had indexed 92.3 per cent of the sample which would seem sufficient coverage for most searches. This alone does not solve the time problem, because if we had to search through all volumes of the *Current List* we again would be expending a great deal of time. Cumulations which cover at least five years are therefore essential. These exist in the form of the cumulation of the National Library of Medicine Author and Subject Catalogs. The study shows that the *National Library of Medicine Author and Subject Catalog* also indexes a high percentage of the supplements of the sample. There is some question whether this has always been the case.

To test this, a list of all supplements to *Acta psychiatrica et neurologica Scandinavica* published between 1950 and 1957 was checked against the Author Catalogs of the National Library of Medicine 1950-1954 and 1955-1959. Of the 60 supplements 51 or 85 per cent were found (Table 1). This is a good percentage but not particularly impressive. The real effectiveness of the tool is revealed when these overall figures are broken down chrono-

¹ BULLETIN, 48: 299-307, July, 1960.

TABLE 1

**Number of Supplements Found in National Library of Medicine Catalog 1950-1954, 1955-1959*

Total Number of Supplements Published	Total Number* Located in NLM Catalog	Percentage Located†
60	51	85

* *Acta psychiatrica et neurologica Scandinavica* Supplements #59-118, 1950-1957.

† Supplements Nos. 72 and 97 were actually not listed as supplements. They had been previously published as dissertations and were indexed as dissertations only. Since both had been cataloged they were included here as located items. If a stricter measure were applied, therefore, the number of located items would be reduced to 49 and the percentage located to 81.7 per cent.

TABLE 2

Number of Supplements Found in National Library of Medicine Catalog, 1950-1954, 1955-1959, by Date of Publication

Year Published	Number	Number Located	Percentage Located
1950-1951	18	9*	50
1952-1953	12	12	100
1954-1955	17	17*	100
1956-1957	13	13	100

* In each of these periods there was one supplement which was actually not listed as a supplement but only as a dissertation. This would reduce the number and percentages located to 8 and 44.4 per cent and to 16 and 94.1 per cent.

logically in Table 2. It is evident that beginning with the year 1952 the coverage was practically complete while in the period from 1950 through 1951 only 50 per cent of the supplements were covered.

This points to a change in policy at the National Library of Medicine around 1952. I suspect that such a change of policy also took place in the *Current List* because the previous preliminary study cited by H. Bloomquist, and others² which, admittedly was based on an inadequate sample, recorded only a 60 per cent coverage by the *Current List* of the supplements in that sample.

Before analytics are abandoned, we should make sure that tools exist which index at least 90 per cent of the supplements of the journals received by a library and that adequate cumulations are available. Apparently, the *Index Medicus* will index all supplements to the journals which it covers.³

² MEYEROFF, E. AND BLOOMQUIST, H. Unpublished data.

³ S. TAINE, Editor, *Index Medicus* Personal communication.

2. Adequacy of the sample.

An inspection of the sample reveals only one journal published by Karger. Karger, however, has earned a small reputation not only because of the quantity of the supplements which his journals produce, but also because of their varied designations. (*Supplementum ad, Bibliotheca, Fortschritte*, for example) But, since the study is a pilot study, this should not detract from its general value, although it does, I feel, affect the conclusions which were drawn.

Decisions of policy should be based upon facts whenever possible and I hope that this study can be extended into the paramedical fields. Such studies also deserve adequate financial support from foundations and other institutions.

Sincerely yours,

ERICH MEYERHOFF,* *Director*

Medical Library Center of New York

* Formerly Librarian, State University of New York, Downstate Medical Center, Brooklyn, New York.

Executive Secretary's Page

HELEN BROWN SCHMIDT

It is the privilege of the *BULLETIN* to introduce to the membership of the Medical Library Association its Executive Secretary, Helen Brown Schmidt.



Mrs. Schmidt comes to MLA from the Midwest Inter-Library Center, where she has been a member of the staff since 1951 and Assistant Director since 1956.

Helen Schmidt is a graduate of Butler University, Indianapolis, and received her B.L.S. degree in 1937 at Columbia University School of Library Service. Between 1930 and 1940 Mrs. Schmidt served in various capacities at the Indianapolis Public Library. Then she went to Nashville, Tennessee, as Head of the Gifts and Exchanges Department of the Joint Universities Libraries. Since January 1947 she has been in Chicago, where, first, she was Assistant in the Gifts and Exchanges Department of the University of Chicago Library, re-opening foreign exchanges halted by World War II; then, Assistant on *The Booklist*, ALA, for two years; and, finally, Head of the Acquisitions Department, University of Illinois, Undergraduate Division,

Chicago, until 1951, when she became Acquisitions Librarian at the Midwest Inter-Library Center.

Mrs. Schmidt's professional energy is matched by her enthusiasm for a variety of diversions. Her taste in music ranges from Dixieland jazz to chamber music, and she enjoys the legitimate theatre. Like our current MLA President she collects cookbooks and enjoys preparing exciting meals. She likes to dance, swim, and hike (to keep the appetite keen, perhaps?). And recently, having been converted from an apartment dweller to a householder, has become, also, a gardener, "learning about hedges and ground cover, flowering bulbs and trees."

One of Helen Schmidt's co-workers has said of her that she has "an ability to co-ordinate and satisfy simultaneously the frequently disparate needs and ideas of many people and institutions . . . with a grace and charm rarely found." These are attributes desirable indeed for one who is to work with 1,000 librarians in 583 libraries.

For the Association we welcome Mrs. Schmidt to MLA and wish her success and happiness in her new position.

Association News

SCHEDULED MEETINGS

Chicago, Illinois	June 4-8, 1962
Washington, D. C.	June 16-22, 1963
San Francisco, California	June 1-5, 1964
Boston, Massachusetts	June 21-25, 1965
Philadelphia, Pennsylvania	1966 (Date to be announced)

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SEVENTH ANNUAL MURRAY GOTTLIEB PRIZE

It is with pleasure that the Association announces that the Murray Gottlieb Prize of \$100.00 will again be awarded for the best essay written by a medical librarian on some phase of the history of American medicine. The award is named for Mr. Gottlieb, an Associate Member of the Medical Library Association whose particular interest was American medical history, who died in 1954. It is given in his memory by his widow and her husband, Mr. and Mrs. Ralph Grimes, owners of the Old Hickory Book Shop, Brinklow, Maryland.

Articles should conform to the instructions given on the inside cover of the *BULLETIN* and should be sent to the Chairman of the Publication Committee before April 15, 1962. Announcement of the winning article will be made at the Annual Meeting of the Medical Library Association in Chicago, Illinois, June, 1962. Judges are Miss Janet Doe, Dr. Dorothy M. Schullian, and Mrs. Mildred Crowe Langner.

SOUTHERN CALIFORNIA REGIONAL GROUP

The MLA Regional Group of Southern California was co-sponsor with the Southern California Chapter of SLA for a one-day Communications Congress: Idea Exchange on March 13, 1961, at the College of Osteopathic Physicians and Surgeons, Los Angeles. At the morning session there were three speakers: Bee Finne, Special Assistant in the Training Department, Pacific Telephone & Telegraph Co., whose subject was "'One Moment Please': Good Telephone Usage"; Dr. William Himstreet, Associate Professor and Head, Business Communications, School of Business, University of Southern California, speaking on "Your Slip is Showing"; and Earl J. Sachs, Vice President in charge of Customer Relations, Title Insurance and Trust Company, "How Business Creates Good Relations with Its Customers." In the afternoon there were the Panel of Library Experts Application Report, business meetings of the two sponsoring organizations, a discussion of the feasibility of regional library subject responsibility, and group meetings to discuss various library procedures such as readers' services, technical processes, and book selection.

NEW YORK REGIONAL GROUP

The New York Regional Group held its spring dinner meeting at the New York Academy of Medicine on April 19, 1961. The guest of honor and speaker was Dr. Frank B. Rogers, Director of the National Library of Medicine. Dr. Rogers spoke on "Nigerian Libraries." Jean E. Foulke, Chairman of the Group for 1960/61, conducted the business meeting which included a report on the establishment of the first New York Regional Group Scholarship for the Medical Bibliography course at

Columbia University. Miss Foulke introduced five past, present, or future presidents of the MLA: Janet Doe, Wesley Draper, and Robert T. Lentz, Gertrude Annan, and Dr. Rogers. The Group welcomed, also, Dr. Howard R. Craig, Director of the New York Academy of Medicine, and Mrs. Craig.

PLACEMENT SERVICE: CHANGE OF ADDRESS

Attention of the readers of the BULLETIN is called to the fact that the new Placement Advisor is Mrs. Mary Fenlon Kaylor, Librarian, Bureau of Laboratories, New York City Department of Health, Foot of East 15th Street, New York 9, N. Y.

MEMBERSHIP APPLICATIONS

All applications for membership in the Medical Library Association should be sent to the Chairman of the Membership Committee, Jess A. Martin, Ohio State University Libraries, 1858 Neil Avenue, Columbus 10, Ohio. Information about membership, however, may be obtained from the regional members of the committee whose names are given in the list of committees for 1961/62 at the beginning of Association News in this issue of the BULLETIN.

EXCHANGE KEY LIST

A limited number of extra copies of the newly revised MLA Key List are available at \$2.00 each, for libraries wishing additional copies. The offer is limited to two to a library. *Cash* should accompany each request, and requests should be sent to the Exchange Manager, Gilbert J. Clausman, New York University Medical Center Library, 550 First Avenue, New York 16, N.Y.

MIDWEST REGIONAL GROUP OCTOBER 1961 MEETING SCHEDULED

The Fall meeting of the Midwest Regional Group will take place at Rochester, Minnesota, October 27-28, 1961. The headquarters will be Hotel Kahler.

Thomas E. Keys, Librarian of the Mayo Clinic, and Mrs. Keys have invited the members of the Group to a pre-meeting Open House on Thursday, October 26, from 5 to 8 P.M. The first general session will take place on Friday, October 27, at 2 P.M., when the program will be a Panel on Medical Book Selection where the authors will be represented by Drs. Edward H. Rynearson and Howard P. Rome; the editor, by Dr. George G. Stilwell; the publisher, by Alexander M. Green; and librarians by Barbara Coe Johnson and William K. Beatty. Friday evening there will be a dinner at the Mayo Foundation House and the after dinner speaker will be Dr. Norbert O. Hanson, whose subject is "Greek Philosophy and Greek Medicine."

On Saturday, October 28, there will be a breakfast business meeting for the Minnesota Hospital and Medical Librarians. The morning program will consist of Group Work Shops on Current Problems, with the medical-dental libraries group led by Bernice M. Hetzner and Donald Washburn; the pharmacy libraries group led by Nettie Mehne; and the hospital libraries group, by Ruth M. Tews. Following luncheon, Scott Adams, Deputy Director of the National Library of Medicine, will speak on "Medical Library Education and the National Library of Medicine." The session will close with the business meeting.

The members of the Midwest Regional Group will be glad to welcome medical librarians from all parts of the country.

NEW FLORIDA REGIONAL GROUP

The "suncoast hospital library group" has been organized into the Regional Conference of Florida Medical Librarians. This new group held its first meeting on May 24, 1961. Its purpose will be to co-ordinate and mutually assist in the operation of the medical libraries in Suncoast hospitals. The officers for 1961 are: Pauline H. Wooldridge, Sarasota Memorial Hospital, President; Stephania Osborn, St. Anthony's Hospital, Vice-President; Mildred I. Moore, Mound Park Hospital, Secretary; Florence M. Bulmer, VA Center, Pay Pines, Treasurer. Chairmen of committees are: Membership, Eleanor P. Diekema, Manatee Veterans Memorial Hospital; Social Program, Christine J. Metcalf, VA Regional Office, Pass-a-Grille; Publicity, Helen C. Donnelly, VA Center, Bay Pines; and By-laws, Mrs. L. Hughes, Sarasota Memorial Hospital.

ADDITIONAL FORTHCOMING REGIONAL GROUP MEETINGS

The New England Medical Library Association will meet on October 20-21, 1961, at the New Hampshire State Hospital, Concord, New Hampshire. The hostesses are Margaret Mackown, Librarian of the New Hampshire State Hospital, and Dorothy Glidden, Librarian, Dartmouth College Medical Library. Rooms may be reserved at the Highway Hotel.

The southern Regional Group will meet at Austin, Texas, on October 20-21, 1961. The headquarters will be the Driskill Hotel. Pauline Duffield, Librarian of the Texas Medical Association, will be hostess.

The New York and Philadelphia Regional Groups will hold a joint meeting in Philadelphia. The meeting is expected to take place in November.

The Washington, D. C. Area Group will hold its Fall 1961 meeting in Washington in connection with the dedication of the new National Library of Medicine building, November 16, 1961.

News Items

DIRECTORY OF SPECIAL LIBRARIES AND INFORMATION CENTERS

The Gale Research Company, Detroit, Michigan, is planning the publication in 1961 of the first edition of the *Directory of Special Libraries and Information Centers*. The *Directory* will be revised triennially. The data will be assembled from questionnaires sent to all special libraries and special collections in the United States and Canada. For each entry the information will include name and address, name of sponsoring institution or organization, name and title of person in charge, names and positions of other professional staff members, size of professional and nonprofessional staff, annual budget, year established, important subjects represented in the collections, size and composition of collections, publications, and services available to outside agencies. The entries will be arranged alphabetically by name within eight major categories, and a detailed subject index will be provided to facilitate the location of collections, libraries, and information services in specific fields. Dr. Anthony T. Kruzas of the faculty of the Department of Library Science, University of Michigan will serve as editor. The usefulness of this directory will be greatly enhanced by a maximum response to the questionnaires and the publishers look forward to full co-operation on the part of the members of the Medical Library Association.

AMERICAN LIBRARY ASSOCIATION MEETING

The 80th annual Conference of the American Library Association will be held in Cleveland, O., July 9-15 with more than 5,000 librarians expected to participate in a program designed to alert them to rapid changes taking place within the profession.

The theme of the conference, "Libraries for All," will be pointed up at three general sessions. Presiding officer will be Mrs. Frances Lander Spain, co-ordinator of Children's Services, New York Public Library and president of ALA.

RUSSIAN SCIENTIFIC TRANSLATION PROGRAM, 1961

The Russian Scientific Translation Program, sponsored by the U. S. Public Health Service, National Institutes of Health, has announced the following changes of contract awards for translation, publication, and distribution of the 1961 run of nine Russian journals produced under its auspices:

The Royer and Roger, Inc., Publishing Company received the contract for *Sechenov Physiological Journal of the USSR*; *Pavlov Journal of Higher Nervous Activity*; *Biophysics*; and *Problems of Oncology*.

Consultants Bureau Enterprises, Inc., received the contract for *Journal of Microbiology, Epidemiology and Immunobiology*; *Problems of Hematology and Blood Transfusion*; and *Problems of Virology*.

Consultants Bureau Enterprises, Inc. will also continue the production of *Biochemistry* and *Bulletin of Experimental Biology and Medicine*.

Pergamon Press Publishing Company, holding the 1960 contract for the production of the first seven of these journals will continue to completion all issues of the 1960 run of these seven titles.

The Russian Scientific Translation Program will continue to distribute the nine journals to the collaborating libraries on its free subscription list.

COMMISSION ON THE COST OF MEDICAL CARE AMERICAN MEDICAL ASSOCIATION

The Commission on the Cost of Medical Care, which was established in February 1960 by the American Medical Association, requests the aid of members of the Medical Library Association in its three-year study of medical care costs. The Commission is attempting to identify and assess the significance of the causal factors involved in determining the prices of and expenditures for medical care. In the study, medical care will be interpreted to include services provided by physicians, dentists, nurses, and ancillary personnel, as well as services provided by hospitals, nursing homes, and diagnostic and treatment centers. It also includes medical research, drug preparations, orthopedic appliances, and premiums paid for health insurance and prepayment plans.

At present, the Commission is in the process of gathering studies, publications, critiques, and surveys published in the past five years which will be of help in making the study. The Commission would like to receive lists of publications and studies on medical care costs. They should be sent to Commission on the Cost of Medical Care, American Medical Association, 535 North Dearborn Street, Chicago 10, Illinois.

COUNCIL ON LIBRARY RESOURCES, INC.

The Council on Library Resources, Inc., continues to sponsor investigations which will aid libraries in the control of their literature. An award of \$31,755 for a contract of approximately fifteen months duration has been given to Intectron, Inc., Newton Lower Falls, Massachusetts, for investigation of various factors affecting high-reduction microphotography, which is expected to provide a better understanding of high resolution microphotographic processes as applied in information storage and re-

trieval systems and to result in the development of working rules of use to documentary laboratories. The high resolution photographic storage media, some of which have resolution capabilities ten or more times greater than conventional microfilm, hold great promise for the future of storage and retrieval systems, but very little study has been made of the interrelations of the elements of the photographic process when reduction ratios of 100 or more are employed. Intectron's investigation will endeavor to bring together data on the scattering of light by photographic materials; the aperture response of optical systems, making use of sine wave (Fourier) analysis; measurement of the effects of development on resolution and acutance utilizing sine wave response techniques; measurement of the loss of detail in production of successive generations from an original microimage; and factors affecting the acceptability of enlargements.

A grant of \$58,886 has been awarded to the University of Pittsburgh to assist the Health Law Center of the Graduate School of Public Health to test and refine techniques developed by the University's Computation and Data Processing Center for information retrieval in the legal field. The grant will enable its Health Law Center to create a tape "library" of statutes of sufficient size that the effectiveness of retrieval techniques can be demonstrated. Searches of the tape library will be compared for speed and accuracy with manual searches by traditional methods. The grant will also provide support for the analysis of such experiments and for the further development of retrieval techniques so that they function efficiently for a library of operational size. The University's new IBM 7070 Computer will be used in the research program.

CONFERENCE FOR HOSPITAL LIBRARIANS

On March 9-10, 1961, a Conference for Hospital Librarians was held in the Library of the J. Hillis Miller Health Center, University of Florida, Gainesville. Librarians and staff participated in six instruction periods covering acquisitions, serials, cataloging, and reference. A problem period was held at the end of the Conference and was tempered to an open forum on any questions presented. At the close of this last period, the group recommended to Fred D. Bryant, Librarian of the Health Center Library, that the Conference be made an annual one and that it be a three-day conference instead of a two-day one. It was felt that the librarians' enthusiasm revealed their interest in their jobs and their appreciation of such a conference.

The social functions included a banquet and a buffet luncheon. The instructors were Christa Marie Sykes, Eunice Disney, Dorothy Byron, Mayo Drake, and Fred D. Bryant.

PUBLICATIONS

Western Reserve University has announced publication of a comprehensive *Manual of Information for Biological Libraries* compiled by Ardis Engle, of the WRU Biology Library, who was also national chairman, 1960/61, of the Biological Sciences Division of the SLA, assisted by a committee composed of Viola Bryner, Cleveland Garden Center, Helen Enlow, Ohio Agricultural Experimental Station, Louise Graves, Cleveland Public Library, and Gertrude Lorber, Pfizer Laboratory, Brooklyn, New York. The manual, of approximately 50 pages, assembles lists of abstract journals, bibliographies, names of associations and of publishers, titles of manuals and handbooks, statistical publications, public health reports, drug information, names of government officials and agencies, biographical sources and addresses with dates and publishers where indicated. Lists of addresses and information about laboratories and biological stations, titles of doctoral dissertations, drug discoveries, and audiovisual aids are also included. The contents of the manual was compiled from replies to questionnaires sent out to 579 libraries of the SLA Biological Sciences Division.

The Catholic Hospital Association of the U. S. and Canada has published *Guides to Hospital Administrative Planning and Control Through Accounting*. The manual examines ten types of administrative reports in detail, explains why they are important, how they are to be interpreted, and what uses the administrator can make of the information contained in them. Nonessential reports are reviewed in a final chapter. It uses non-technical terms which can assist the administrator to acquire an understanding of and ability to use accounting information and statistical data in planning and control of hospital activities. Before publication the *Guides* were tested in a sample group of hospitals, which reported that they are of practical, not merely theoretical, value. The manual may be purchased from the Publication Department of the Catholic Hospital Association, 1438 South Grand Boulevard, St. Louis, Missouri, for \$2.00 per copy.

Basic Lists of Books and Journals for Veterans Administration Medical Libraries, August 1960 Revised (G-14, M-2, Part XIII) is now available.

W. B. Saunders Company inaugurated with the May 1961 issue a new periodical entitled *The Journal of Surgical Research* to be published bi-monthly at \$10.00 per year.

Kybernetik, a new journal published by Springer, beginning in January 1961, bears the subtitle "A Journal Dealing with the Transmission and Processing of Information as Well as with Control Processes in Both Organisms and Automata." The price is DM 12.80.

Pergamon Press Publishing Company has announced plans to publish

in 1961 cover-to-cover translations of a number of Russian journals. These will be published independently of the the Public Health Service, National Institutes of Health, Russian Scientific Translation Program, which has distributed to collaborating libraries translated Russian scientific journals for five years. Information about the subscription prices of the translations to be published by Pergamon Press in 1961 may be obtained from the company.

PERSONAL NOTES

Lea M. Bohnert, formerly with RCA and Lecturer at The American University, Washington, D. C., is now Chief, Information Retrieval Section, Library Branch, Federal Aviation Agency.

Dr. Estelle Brodman has accepted the position of Associate Professor of Medical History in the Department of Anatomy and Librarian of the Washington University Medical School to take effect at the beginning of the 1961/62 academic year. Formerly Dr. Brodman was Assistant Librarian for Reference Services at the National Library of Medicine and recently has been Associate for Extramural Planning there.

Thomas E. Keys, Librarian of the Mayo Clinic, has been elected a corresponding member of the Section of Medical History of the Swedish Medical Association.

Ellen Mayeux, formerly Reference Librarian at the National Library of Medicine, is now Librarian, Medical Library, Federal Aviation Agency.

The National Library of Medicine has announced the names of the interns who have been selected for a one-year period of work and study beginning September 5, 1961. They are *Karen S. Hampe*, a graduate of the University of Wisconsin Library School, *Elizabeth J. Sawyers*, University of California at Los Angeles, and *David A. Smith*, University of Illinois.

Tordis Vatshaug, formerly on the staff of the Acquisitions Division, National Library of Medicine, is now Reference Librarian, Federal Aviation Agency.

Winifred Sewell, 1960/61 President of Special Libraries Association and former Librarian, Squibb Institute for Medical Research, will join the staff of the Index Division of the National Library of Medicine as Subject Heading Specialist on May 1, 1961. In this capacity Miss Sewell will be responsible for the conversion of the present subject structure used in the *Index Medicus* and the *NLM Catalog* to the future system to be employed in the Library's projected Medical Literature Analysis and Retrieval System (MEDLARS).

Alberta L. Brown, formerly Head Librarian of Upjohn Company, has been named to the Special Libraries Association Hall of Fame, which was

established in 1959 to grant recognition to those who have made outstanding contributions to the growth and development of the Special Libraries Association during their professional careers.

Fred D. Bryant, Librarian of the J. Hillis Miller Health Center, University of Florida, and Business Manager of the BULLETIN, is also Executive Secretary of the Florida Library Association.

The Mayo Clinic Library, of which *Thomas E. Keys* is Librarian was host to the Minnesota Chapter of Special Libraries Association on May 20, 1961.

Helen R. Bayne, formerly Librarian and recently Humanities Librarian at New York University Medical Center, retired on June 1, 1961. Miss Bayne was honored at a reception. After a vacation Miss Bayne will go to the New York Academy of Medicine to undertake a special cataloging project.

Mildred Crowe Langner, Librarian of the Jackson Memorial Library, University of Miami School of Medicine, and retiring Editor of the BULLETIN, has accepted the position of Chief of Reference Services at the National Library of Medicine. Mrs. Langner will go to her new position in September.

Louise M. Darling, Librarian of the Biomedical Library, University of California at Los Angeles, was the recipient on June 7, 1961, of the Golden Bruin award of the UCLA Medical Center Auxiliary. The award was created to honor a professional woman in a field other than medical science for her contribution to the progress of the Medical Center.

Medical Library Association scholarships for courses in medical library administration and bibliography, Summer 1961, were awarded to *Carolyn Billitzer* and *Ruth Levine*, Columbia University; *Constance Porter*, Catholic University; *Mayo Drake*, Emory University; *Jack Dayton Key*, University of Illinois; and *Arline Le Porte* and *Tibor V. Barteky*, University of Southern California.

On September 5 *Jacqueline W. Felter*, Librarian of the Medical Society of the County of Queens, and Associate Editor of the BULLETIN, will become Director of the Union Catalog of Medical Periodicals of Greater New York. The Union Catalog is one facet of the newly developing Medical Library Center of New York.

Mr. *Irwin Pizer* will join the staff of the Washington University School of Medicine Library, St. Louis, on completion of his internship at the National Library of Medicine in Autumn 1961.

Book Reviews and Journal Notes

OTILIA GOOD, EDITOR

Books received January–March 1961. Suitable titles
will be selected for review

- ABRAMSON, HAROLD, ed. *Resuscitation of the newborn infant; principles and practice*. St. Louis, Mosby, 1960. 274 p. illus. \$10.00.
- BENNETT, IVY. *Delinquent and neurotic children; a comparative study*. New York, Basic Books, 1960. xii, 532 p. \$10.00.
- BLAINE, GRAHAM B., JR. AND MCARTHUR, CHARLES C. *Emotional problems of the student*. N. Y., Appleton, 1961. xxv, 254 p. \$4.95.
- BURTON, ARTHUR, ed. *Psychotherapy of the psychoses*. N. Y. Basic Books, 1961. x, 386 p. \$7.50.
- DUBOS, RENÉ. *Mirage of health; Utopias, progress, and biological change*. Garden City, Doubleday, 1959. 235 p. 95¢ (Anchor Books, paper, pocket ed.)
- ENGEL, LEONARD. *Medicine makers of Kalamazoo*. N. Y., McGraw-Hill, 1961. viii, 261 p. \$4.50.
- EYSENCK, H. J. *Handbook of abnormal psychology; an experimental approach*. New York, Basic Books, 1961. xvi, 816 p. \$18.00.
- FALCÃO, EDGARD DE CERQUEIRA. *Novas achegas ao estudo da determinação da especificidade do "Schistosomum Mansoni."* Sao Paulo, Empresa Gráfica da "Revista dos Tribunais" 1957. 211 p. no price.
- FALCÃO, EDGARD DE CERQUEIRA. *Pinrajá da Silva; o incontestável descobridor do "Schistosoma Mansoni."* Sao Paulo, Empresa Gráfica da "Revista dos Tribunais," 1959. 314 p. no price.
- FITCH, GRACE E. *Arithmetic review and drug therapy for practical nurses*. N. Y., Macmillan, 1961. viii, 164 p. \$3.50.
- FORSTER, FRANCIS M., ed. *Evaluation of drug therapy; proceedings of the symposium on evaluation of drug therapy in neurologic and sensory diseases held at the University of Wisconsin, May 1960*. Madison, University of Wisconsin Press, 1961. xxiv, 167 p. \$4.
- GOLDMAN, ROBERT P. *Lose weight and live*. Garden City, Doubleday, 1961. 235 p. \$3.95.
- GOOSTRAY, STELLA AND SCHWENCK, J. RAE. *A textbook of chemistry*. 8th ed. N. Y., Macmillan, 1961. xiii, 502 p. \$6.95.
- GORDON, GAVIN C. *Congenital deformities*. Edinburgh, Livingstone, 1961. (Williams & Wilkins, Baltimore, exclusive U. S. agents) vii, 128 p. \$8.50.

- HERMS, WILLIAM B. AND JAMES, MAURICE T. *Medical entomology*. 5th ed. N. Y., Macmillan, 1961. xi, 616 p. \$12.50.
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